

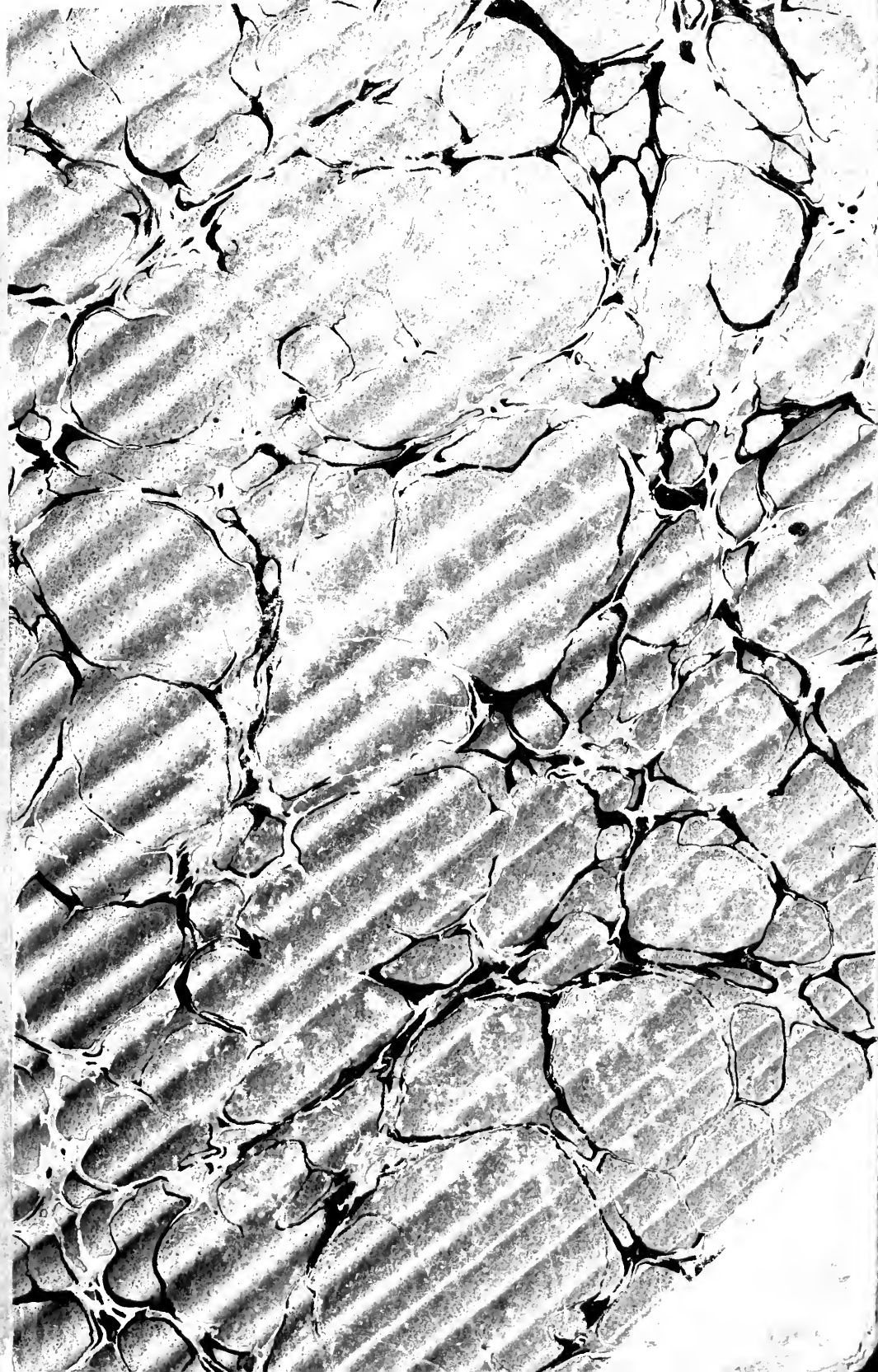
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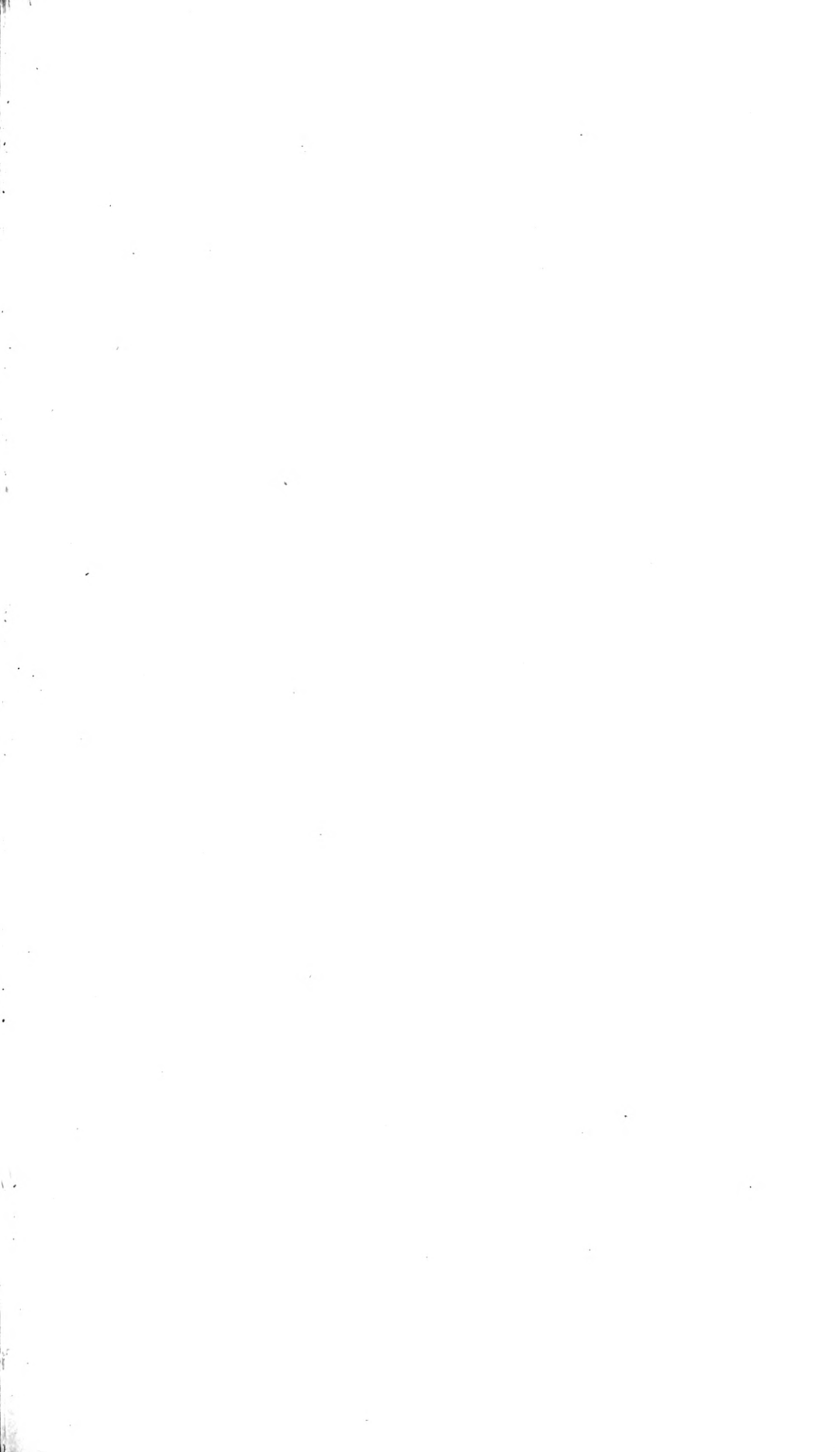
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# NEW ENGLAND FARMER



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## CALENDAR FOR JANUARY.

"Time speeds away—away—away—  
Another hour—another day—  
Another Month—another Year—  
Drop from us like the leaflets here.

"Time speeds away—away—away—  
No eagle through the skies of day,  
No wind along the hill can flee,  
So swiftly or so smooth as he."



JANUARY First, Anno Domini, Eighteen Hundred and Sixty-One. Another year, another decade of years, has slipped away from us almost as unconsciously as the date has slipped from our pen. The year of our Lord 1861, — a mere point in the cycles which have rolled on since the first man first felt

the mysterious influence called *life*, and yet how all important, how all-embracing it seems to us.

We are apt to look upon the generations that have been as only so many links in the chain which reaches from the creation down to us. Why, Adam, Methusaleh, Noah, and all who have since existed, only prepared the way for the glorious era of the nineteenth century. We forget that every man and every race has regarded himself and his times in precisely the same light as the one point toward which everything else has tended. Little did Adam think of the use the Westminster divines were going to put him to, as a hen-pecked husband and the author of evil to

his race. He thought no more of us, than we do of the people that are going to live six thousand years hence, but supposed, as we do now, that the world was made for him and his, and that he had nothing to do but cultivate his farm quietly, and bring up his children in the fear of God. Little *he* thought of the Assembly's Catechism or Milton's *Paradise Lost*. Methusaleh—Noah—it seems strange that they never considered themselves in the light of antediluvians, while *we* never think of them in any other light. Strange that Methusaleh could not have answered a question familiar to the smallest school-boy now.—"Who was the oldest man?"

It is hard to realize that our past was the "living present" of somebody else. We look at the Egyptian mummies, who have risen from their tombs and made their first voyage across the waters three thousand years after their death, and have a complacent feeling that the great end of their existence was to be embalmed, and serve as objects of curiosity to us, forgetting that they, with blooming cheeks and beating hearts, chased the same shadows that we are chasing now! Even the mastodon and the trilobite, those fossil remains which the wise ones puzzle their heads over, were once fresh creations, and rejoiced in their new gift of life like a last summer's bee or butterfly. But, surely, we think, Time has set his foot down and is going to stop awhile. Not so. Still

"Time speeds away—away—away,"

and in "the light of other days" *we* may be Noahs and Methusalehs — perchance fossil remains of extinct races! But they wont carry our bodies about for a show—we are too sharp for them there. No—the dust shall *return to the earth as it was, and the spirit unto God who gave it*.

But how it humbles our pride to think that we must share the oblivion which has fallen upon so large a portion of our race. Imagine some future wise man wandering over the ruins of Boston,

New York, or London, as Ledyard and others have gone over Nineveh and Babylon. Standing before the remains of the State House, he says:—"The people of that age must have been partially civilized; they understood the uses of stone and mortar." Coming across the bronze statue of Franklin, he pulls out his note-book and writes, "*Mem.*—The Americans of the nineteenth century were copper-colored, and wore cocked hats!"

Flying across the country in his balloon, he lights on the ancient city of Gotham. The first thing he sees is Barnum's collection of Indian curiosities. "*Note.*—Manhattan—a small island formerly inhabited by savages." As we before remarked, this view of the case is rather humbling to man's pride, but let no one mistake our moral, which is, not that we should sit down and do nothing because "the world passeth away," but that we should be very careful to do the *right thing*, so that though we may not figure largely hereafter in the chronicles of earth, we may yet find our names in the history which the recording angel keeps above!

The year 1860 has had its incidents, some of them of a startling character, and as they occur, one after another, in the years that are wafting us along, they admonish us that there are dangers and temptations within, as well as around, our beloved country, and they all ought to teach us this important lesson, that *what we do* shall well please the recording angel to enter upon his book.

And now to our friends, readers and patrons, "A Happy New Year." May the sixties crown those hopes and fulfil those plans which have been marked out in the fifty-nines. May the same loving eyes continue to beam upon you, and the same kind voices fall on your ear which have so joyfully wished you a happy new year this morning. And yet, for some, we know this cannot be. We know it by the past, for who is there that can look about his family circle of a New Year's day, with no sad memory of an absent face to mar his happiness! Rejoice, we must and should, over the day and the year that dawn upon us now, but in every heart is a niche where none may enter, *sacred to the memory* of the "loved and lost." We must and should ring out our joy-bells over the new year, with its hopes and plans, but for most, there is a deeper tone heard by no other ear—a solemn toll for one, who, on the first of January, 1860, or on some other 1800 which we well remember, looked up in our face and said, "I wish you a Happy New Year!"

Do you see the shade gathering on any brow in your household to-day? Which one shall it be? Which can you best spare? *None—none*, you say, as you gather them closer to your side; but

God knows who, and when, and how. Love them, then, and cherish them as you will wish you had when one of the number shall lie down by those already gone, or shall fill that vacant lot in the cemetery, which you have so carefully enclosed and planted with flowers!

Once more, a Happy New Year to all. Let us do with new ardor and new energy what our hands find to do,—for

"Time speeds away—away—away."

#### GRASS TO THE WINDOW.

There is all the difference in the world between the shadiest and greenest public garden or park, even within a hundred yards of your door, and the green shady little spot that comes up to your very window. The former is no very great temptation to the busy scholar of rural tastes; the latter is almost irresistible. A hundred yards are a long way to go with purpose preposse of enjoying something so simple as the green earth. After having walked even a hundred yards, you feel that you need a more definite aim. And the grass and trees seem very far away, if you see them at the end of a vista of washing your hands, and putting on another coat and other boots, and still more of putting on gloves and a hat. Give me the little patch of grass, the three or four shady trees, the quiet corner of the shrubbery, that comes up to the study window, and which you can reach without even the formality of passing through the hall and out by the front door. If you wish to enjoy nature in the summer time, you must attend to all these little things. What stout old gentleman but knows that when he is seated snugly in his easy chair by the winter evening fireside, he would take up and read many pages in a volume which lay within reach of his arm, while he would do without the volume, if, in order to get it, he had to take the slightest trouble of rising from his chair, and walking to a table half a dozen yards off? Even so must nature be brought within easy reach of even the true lover of nature; otherwise, on a hundred occasions, all sorts of little fanciful hindrances will stand between him and her habitual appreciation.—*Fraser's Magazine.*

FEEDING HOGS.—It is suggested in the *Rural American* that the usual process of feeding pumpkins, potatoes, and other bulky substances for several weeks before they are fed on heavier food, is unphilosophical; as the more bulky food tends to enlarge the stomach and digestive organs, so that from mere habit they eat a larger amount of the more nutritious food than the system requires—more than can be digested, and more than they otherwise would do.

FRAMINGHAM FARMERS' CLUB.—This old and energetic club has commenced a new series of meetings for the season. Its officers are—F. C. WHISTON, President; WILLIAM HASTINGS, Vice President; O. O. JOHNSON, Secretary; BENJAMIN K. HAVEN, Treasurer.



### FACTS ABOUT FEEDING HORSES.

In a recent number of the *Rural*, an inquirer asks if fermented grain will fatten hogs, and also states that a conversation with some *savant* in a railroad car has led to the inquiry. Having had occasion to use from two to four road horses for my own driving for the last twenty-one years, and having fed my hogs in the fall from the same grain as the horses for the last ten years, perhaps this limited experience may be of benefit to some of the numerous readers of your valuable journal.

My first impressions were that good, clean, bright timothy hay, and good oats, were alone fit for roadsters. For two or three years I used nothing else, when necessity compelled me to fill my barn with the red-top grass, and my mind with the beautiful prospect of heaves, crow fodder, and all that sort of thing. Contrary to all my high wrought anticipations, however, I found my horses went out of the stable, not as full and plump in the morning, but returned much more so at night, than when fed on timothy. This took the first scale from my eyes.

Soon after this having raised a few hundred bushels of corn of my own, the query arose as to what disposition was to be made of it. Scours, founders, belly ache and all that kind of nonsense, attached itself to the idea of feeding it to horses, when a friend suggested that I should break it up short, and soak it in the ear. On this I found my horses could do as much work as on good oats. The bulk of the cob made it too much labor, and I soon after commenced with shelled corn, and for the last fifteen years have fed no other grain, when at home than this.

About the same time I learned the important fact that hay was not necessary, and that the same money laid out in good bright straw and corn, would last much longer than the same in hay and oats. My plan was to take a barrel and fill, say two-thirds full of corn, and then full of water, and when I commenced feeding this, would have another barrel filled and soaking while using the first. The odor which it gives in summer is not sometimes as pleasant as otto of roses, and I have found that with some horses there was an objection to feeding it, if compelled to feed them away from home, for they would utterly refuse any other kind of grain. It was seldom that I found a horse that would eat more than four quarts of this three times a day, which is equivalent to less than three of dry corn for any length of time. Strange as it may seem to many an old fogey, after harvesting my crop of carrots, I have substituted one and two feeds a day of four quarts of carrots for their feed of corn, and had them do equally as well; but have never given them to my hogs instead of corn.

If said learned *savant* will consult Liebig's Animal Chemistry, he will find the true rationale to the above facts. There are many advantages in feeding fermented grain to horses subject to fast driving, only two of which I shall mention now. First—it is easier of digestion, so that if any one it obliged to start the horse as soon as his meal is finished, he is not so apt to scour. Second—you can feed him, however warm he may be, without the least fear of injury. Give him his regular feed and then turn him to the barrel and let him

eat his fill, and your humble writer will guarantee all damage from it. And if he has just learned that he has been killing lean hogs for the last ten years, surely he must need some lessons.—*Rural New-Yorker*.

### SCIENCE IS KING.

Some of our readers are anxious under the present condition of our national affairs, and make numerous inquiries about results. We cannot tell. These only are known to Him who guided our forefathers here, and who has sustained us in the trials through which we have passed. There is certainly cause for anxiety, but as yet, none for alarm. No mortal power can starve out or hunt down a population like that of New England, made up of men and women who can work all day, live upon saw-dust pudding, if necessary, and then defend themselves all night. They can neither be subjugated, nor will they violate the rights of others, so long as the Homes and Hearthstones of New England are their own. Our anxiety is, that the pride of wealth, the insatiable desire to accumulate riches, will induce some of our merchant people to do violence to their consciences, to liberty and God.

It shows the weakness and folly of any men when they threaten to starve a free people by withholding from them one or two agricultural products; it shows, also, their ignorance of the *laws of trade*, which are as utterly beyond their control as are the motions of the waves which lave our beautiful shores.

We have given in another column an article upon the subject, "*Science is King*," and invite the attention of the reader to it. In the excited state of the public mind, we commend to all the use of mild language, but a defence of principle as firm as the granite hills which tower above us. Let us examine our position, and see if we are right before God and man, and if we find ourselves to be so, death is better than concession.

WHEAT IN NEW HAMPSHIRE.—Mr. E. M. Dunbar, writing to the *Rural American*, says that in New Hampshire there has been more excitement about the crop of wheat this year than about the election of President, and adds:

I think the yield of wheat will average thirty bushels to the acre throughout the State. I have raised thirty-two and a half bushels from one hundred and fifty rods of ground, which makes as nice flour as anybody need to have. Others have done better, harvesting upwards of forty bushels to the acre.

KEEP HOGS CLEAN.—Hogs kept all the time wallowing in their own filth, can neither be healthy nor make good nutritious pork. The stench of the pen permeates the tissues of the animal through the medium of the lungs. So says the *Ohio Farmer*.

For the *New England Farmer*.

### THE POTATO ROT NOT CAUSED BY INSECTS.

MR. EDITOR:—In your paper of the 3d of November, we have another communication from Mr. Lyman Reed, of Baltimore, on the subject of the potato rot, which seems to require some brief notice by me, not on account of any new fact or argument adduced, but for the persistency with which he asserts and re-asserts the old one.

We are told by the wise man, that "He that is first in his own cause, seemeth just: but his neighbor cometh and searcheth him." I have no doubt but Mr. Reed thinks his cause is just, that he really believes he has discovered the true cause of the potato rot, and that all who do not believe his assertions on this subject, and draw the same inference that he does, are not only opposing the truth, but opposing his interests and his rightful claims upon the public. Now, as I profess to be a neighbor to Mr. Reed, notwithstanding the difference in our localities, and as I wish to act a neighborly part towards him and his interests, he will not think it strange that I should put him to the proof and give him an opportunity to prove his claims upon the public, or, on the other hand, that I should come forward, with the full conviction that the truth is mighty and will prevail, and endeavor to search out his boasted facts and inferences, and ocular demonstrations.

Let us, then, attend to the facts in the case, if there be any, and see what bearing they have upon the subject now under consideration. The only fact, so far as I know, which has been adduced to prove that insects are the cause of the potato rot, is the fact, so often repeated, that, by the use of the microscope, Mr. Reed has discovered insects on the diseased potatoes which he examined and exhibited to others. This isolated fact has been testified to by seventeen members of Congress, by Charles L. Flint, Esq., Secretary of Mass. Board of Agriculture, and by one of the Professors in the Smithsonian Institute. And what inference is attempted to be drawn from this one solitary fact, and by these nineteen certificates? Why, what every knowing farmer and skillful tiller of the soil, from his own observation and experience, knows to be false, that insects are the cause of the potato rot. The fact of the presence of insects is cheerfully admitted; but the inference attempted to be drawn is denied; because the insects are regarded as the consequent or concomitant of the rot, and not the cause of it.

There are other facts in the case, and a large number of them, too, to which I have had my attention directed for several years past, and some of which I pointed out in my seven reasons, which are wholly inconsistent with the idea that insects are the cause of the potato rot. A few examples must suffice:

*First Fact.*—Take any of the most delicate and early kinds of potatoes, such as are most liable to rot, and having put them a sprouting early in March, and planted them as early in April as the season will admit, and in a favorable soil, they will entirely escape the rot, because they will be dead ripe before the season of the rot commences.

*Second Fact.*—Take from the same bin some of the same kinds of potatoes, and plant in the same

field, at the usual time of planting, and they will blast and rot, if it be a season in which the rot prevails generally.

*Third Fact.*—The potato rot does not take place every year, and hence cannot be caused by insects, who would necessarily work every year in order to propagate their species, otherwise they would become extinct.

*Fourth Fact.*—The potato rot does not manifest itself in all places equally, but is confined to certain localities in the same field, which would not be the case, if caused by insects.

*Fifth Fact.*—Soils highly enriched by active, concentrated and stimulating manures, are more affected by the rot than other soils.

*Sixth Fact.*—It frequently happens the blast turns out to be nothing but a mere blast which kills the tops and checks the growth of the tubers, but leaves them all smooth and bright, and, to all appearance, entirely unaffected by disease, which would not be the case, if the blast were caused by insects on the tubers.

*Seventh Fact.*—All kinds of potatoes are not alike affected by the disease; but, on the contrary, some kinds are entirely exempted from it. Such is the fact with regard to the black potato, and some others.

*Eighth Fact.*—The potato rot always manifests itself, if at all, at a particular time or season of the year, within the limits of a very few days, which time is always preceded by the most remarkable thermal changes in the state of the atmosphere—by a few days of extremely hot and dry weather, succeeded by copious, warm rains, and accompanied by an oppressive, sultry and muggy atmosphere.

These *eight facts* are respectfully commended to the careful examination of Mr. Reed, and of those other nineteen gentlemen of distinction, whom he has led to adopt his insect theory, and whose certificates he has printed in the papers and trumpeted forth to the world. It will not do to deny these facts, or to ignore them, for they are known to exist. They are facts, and not inferences, or reasonings, or logical deductions; and they must be met, and fairly met; and they must be answered, and fairly and fully answered, each fact by itself, before any credit can be given to the insect theory. There must be no sophistry in the case, no dodging, no quibbling, no arguing in a circle, no resorting to the old assertion of "ocular demonstration;" no, but it must be shown, that all these facts are perfectly consistent with the insect theory. JOHN GOLDSBURY.

Warwick, Nov., 1860.

CEREAL GRAINS.—The *Manchester American* says that Mr. Killam, an enterprising farmer of Temple, N. H., has for some years been collecting all the varieties of grain in this country, and such as he could obtain from Europe. This season he sowed a small parcel of each, seventy in number, of which over forty were wheat—the rest rye, oats and barley. The most of these species have a very slight difference in their general appearance. The Egyptian wheat is the most marked, having a cluster of heads, instead of a single one, on each stalk. Mr. K. will keep a sample of the kernels and heads of each in his cabinet, as an agricultural curiosity.

FIBRE-CROPS---FLAX.

Some inquiries have recently been made of us in regard to the flax crop, and attention is again called to the subject by the discovery of a mode of "rotting it," and separating the external covering, the fibre, from the inner stem, or stalk part.

Formerly the cultivation of flax was considered one of the most important branches of New England industry. A good crop of flax, to be manufactured by the female members of the family into articles of domestic use, was an object of laudable ambition with many farmers. As a field product, its cultivation was regarded as somewhat difficult—on any soil of moderate fertility,—though, like other products, it always succeeds best when supplied liberally with its appropriate food. In preparing lands for flax, experience had early demonstrated the fact, that a fine, deep soil is much better adapted to the growth of flax, than one of an opposite texture. It was early ascertained to be a very exhausting crop, and in the rotary system adopted on the continent, and in Belgium, at this day, where the culture of flax is extensively pursued, it is not allowed to enter oftener than once in seven years. Calcareous lands, or lime in its caustic state, it has been ascertained, are detrimental to the growth of this plant. Several soils which had produced excellent crops of flax were submitted to analytical examination, and were found to contain :

|   | No. 1. | No. 2. | No. 3. |
|---|--------|--------|--------|
| Silica and silicious sand.....  | 73.72  | 69.41  | 64.93  |
| Oxide of iron.....  | 5.51   | 5.29   | 5.64   |
| Alumina.....  | 6.65   | 5.70   | 8.79   |
| Phosphate of iron.....  | .06    | .25    | .31    |
| Carbonate of lime.....  | 1.09   | .53    | 1.67   |
| Magnesia and alkalies, with traces of sulphuric and muriatic acids..... | .32    | .25    | .54    |
| Organic matters.....  | 4.86   | 6.67   | 9.41   |
| Water.....  | 7.57   | 11.43  | 8.73   |
| Total.....  | 99.78  | 99.53  | 98.22  |

In all these specimens the organic matter was highly nitrogenized, a fact which renders their fertility in the production of the flax crop, easily understood. The ligneous substance of the flax plant, which, by subsequent manipulation is converted into linen, is found to be composed of precisely the same elementary matter as starch and sugar, and in very nearly the same relative proportions. In one hundred parts—omitting the matter contained in the cellular cavities, it gives

|               |       |
|---------------|-------|
| Carbon.....   | 50.03 |
| Hydrogen..... | 5.55  |
| Oxygen.....   | 44.45 |

One remarkable fact in relation to this plant is, that the fibre, which alone constitutes the real money value of flax, is elaborated solely from atmospheric pabulum, or the food derived during its life from the air. All the elements it derives from the soil are employed by the system, in organizing substances which are of no practical

value to the farmer, but, on the contrary, rather a disadvantage.

Probably the best soil for the cultivation of flax is a light, fine loam, with a slight admixture of clay, but not sufficient to render it wet in moist seasons, or subject it to the liability of parching or becoming "baked" when dry. A chemical analysis of the plant may partially indicate what manure would be adapted to its full development. We have already given the results of several analyses of the fibre; we will now give analyses of the flax plant as it grows, and of the ash after burning:

| FLAX PLANT.                        |       |
|------------------------------------|-------|
| Carbon.....                        | 38.72 |
| Hydrogen.....                      | 7.33  |
| Nitrogen.....                      | .56   |
| Oxygen.....                        | 48.39 |
| Ash.....                           | 5.00  |
| 100.00                             |       |
| ASHES OF FLAX PLANT.               |       |
| Potash.....                        | 9.78  |
| Soda, (sea air).....               | 9.82  |
| Lime.....                          | 12.33 |
| Magnesia.....                      | 7.79  |
| Oxide of iron and alumina.....     | 6.08  |
| Silica, (sand).....                | 21.35 |
| Sulphuric acid.....                | 2.65  |
| Chlorine, (sea air).....           | 2.41  |
| Carbonic acid, (air charcoal)..... | 16.95 |
| Phosphoric acid.....               | 10.84 |
| 100.00                             |       |

For the New England Farmer.

APPLES FOR MILCH COWS.

MR. EDITOR:—Being a constant reader of the *Farmer*, and somewhat interested in agriculture, although it is not my business, and knowing how much people are opposed to feeding out apples, particularly to milch cows, and of the misapprehension of the amount of nutritious matter contained in them, I thought I would give my experience in the trial of them. I have a cow four years old last spring, that calved in February, and will calve again in March, which I have fed every day since apples were large enough, with from half a peck to a peck. She gives six and a half quarts of milk per day. Now, if the apples would have dried her up, as some people say, she would not certainly be giving that amount now, as my neighbors have cows equally as good as mine, that do not give more than one-half the quantity.

I am aware that many object to feeding out apples, on the ground that the cows will get choked by swallowing the apples whole. I have never known of an instance happening where the cow was tied up and the apples put before her in a box. If fed in the yard or field, they are liable to be started quickly by another creature, and the apple thrown into the gullet, where, being too large to pass into the stomach, it sticks. I heard quite a good farmer remark that cattle are hurt by eating too many apples at a time—they break into an orchard and eat beyond the capacity of the stomach to digest. Would it not be so if they ate green corn, or any other kind of food, to excess? In fact, every excess in partaking of food produces injury, and is followed by symptoms of indigestion. I am satisfied that one-half a peck of apples given to a cow morning and evening, will increase the quantity and quality of the milk,

and are equal, if not better, to a peck of carrots. There are in 100 pounds of carrots, 10 pounds of nutritious matter and 90 pounds of water; in 100 pounds of apples, 16 pounds of nutritious matter and 84 pounds of water; in the sweet apple there would be double the quantity. Now as apples are plenty this season, and it is impossible for many farmers to get barrels to put them into, let them give them to their stock, especially cows, and they will find it is better to use them so, than make them into cider, or sell them at the present low prices. When we consider the little trouble in raising the apple compared to the carrot, and the preference the cattle give to the apple, its soft, pulpy nature compared to the hard carrot, being easier of digestion, and a more healthy article of food in proper quantities, I think we shall decide in favor of the apple, and use them more than we have done for the feeding of stock. W.

*Dover, N. H., Nov. 5, 1860.*

*For the New England Farmer.*

#### HARDENING UNRIPE CORN.

MR. EDITOR:—I find, from some experiments made this fall, that corn that fails to ripen in the field, by reason of early frosts, may be hardened so as to be ground into good meal (even if it is not seared at all when gathered,) by being immersed in water at boiling heat, kept under four or five minutes, and afterwards dried in the sunshine, or elsewhere.

Corn treated in this way becomes as yellow as that ripened in the field, and there need be, I think, but little fear of its moulding while drying.

The above may not be new to the readers of the *Farmer* although it is to me; neither might it be a paying process, for all corn-raisers; but there may be times and places when and where it will pay to try it; and for those I make it public.

JOHN CALVIN GITCHELL.

*Boscawen, N. H., Nov., 1860.*

POWER OF A BIRD'S SONG.—When we hear the song of a soaring lark we may be sure that the entire atmosphere between us and the bird is filled with pulses, or undulations, or waves, as they are often called, produced by the little songster's organ of voice. This organ is a vibrating instrument, resembling, in principle, the reed of a clarinet. Let us suppose we hear the song of a lark, elevated to a height of 500 feet in the air. Before this is possible the bird must have agitated a sphere of air 1000 feet in diameter; that is to say, it must have communicated to 17,888 tons of air a motion sufficiently intense to be appreciated by our organs of hearing.—*Tyndall's Glaciers of the Alps.*

CINCINNATI VINEYARDS.—Dr. S. Mosher states in the *Ohio Valley Farmer*, that he has visited some dozen or more vineyards in the vicinity of Cincinnati, on both sides of the river, and found all that he visited more or less affected with that most fatal malady of the Catawba grape, the rot—having destroyed by its ravages, varying from one-fourth to three-fourths of the crop.

#### SIXTY-FOUR BUSHELS OF WHEAT TO THE ACRE.

The Baltimore *American Farmer* publishes the statement of Mr. M. T. Goldsborough, of Ellenboro', near Easton, Md., of a crop of wheat raised the past season, on the farm of his late father, Col. N. Goldsborough, by which it appears that 27½ acres produced at the rate of a mere fraction less than 55 bushels per acre, allowing 60 pounds to the bushel; the best 9 acres of which produced at the rate of 64½ bushels per acre. We copy a few paragraphs from the statement:

The field upon which this crop grew had, like the other portions of the farm, been subject to the three field rotations of corn, wheat and clover, for a great number of years. It had been the practice for years on this, as on many other well-cultivated farms in this country, to dress the entire corn cultivation with some improving material. My father used unrotted farm-yard manure, marsh mud, woods mould, Indian oyster-shell deposit, marl, or lime variously applied. He never used the marl or lime extensively, but obtained almost all of the calcareous manure which he applied from the Indian oyster-shell banks, and this he at one time applied very heavily upon land not shelled by the aborigines.

It was, in its due course, manured and planted in corn in 1856, and in the fall the ground was harrowed, rolled, drilled in wheat without guano, and set in clover in the following spring. The crop reaped from it in 1857, (a bad wheat year,) was about twenty bushels, per acre. I mention this to show the capability of the soil under such circumstances.

In the spring of 1858, the clover was filled with that terrible pest, "Pigeon weed," or "Red root," which now fatally chokes out wheat on many fine farms in this country, and I attempted to prevent it from seeding by stocking the field heavily, about the last of April, with horses, cattle, sheep and hogs, but the season being very genial for grass, the weed was left untouched, and therefore, to prevent its seed from ripening, I put in a large force of plows in the latter part of May, and broke the field about six inches deep.

Stock continued to trample over the plowed surface until after harvest, and as the plowing was at so early a period, it was of course necessary to harrow and roll it a great many times, (I do not know how often, as I do not reside on the farm, and no journal was kept,) to keep the grass and weeds under. It was not plowed a second time, and when it was drilled, there was nothing like a clod to be seen on the surface, and there was only loose earth enough, and in the condition of powder, to allow the drill to cover the wheat effectually, the earth beneath the wheat having become very firmly packed by the action of rain, the trampling of stock, and the effect of implements, in the four months that intervened between the plowing and drilling.

It was drilled with an old Pierson drill nine inches wide between the tubes, on the 4th, 6th and 7th of October, the wheat being deposited about one inch below the surface of the soil in the bottoms of the drill furrows.

The seed wheat drilled was thirty bushels—the

variety being the beautiful smooth headed white wheat, obtained in this country a few years ago, from Mr. Johnson, of North Carolina.

Two bushels were drilled on one acre, and the remaining twenty-eight bushels were drilled at the rate of one bushel and sixty-one hundredths of a bushel per acre, at which rates the thirty bushels extended over eighteen acres and four-tenths of an acre.

The growth was enormous, being so dense that two persons, eight or ten feet apart in it, were invisible to each other, and the tallest specimens were six feet four inches in height, but it was generally about five feet six inches in height.

A few days ago, I carefully measured the whole of the ground drilled with the said thirty bushels. [The land and produce were divided with the intention of applying for a premium.]

The following is a statement of the yield :

| THE 18 4-10 ACRES YIELDED,                         |                    |
|--|--------------------|
| Bushels.   | Bushels of 60 lbs. |
| 305 prime wheat weighing 63 lbs.....               | 315.60             |
| 495 prime prepared for seed, weighing 63½ lbs..... | 523.67             |
| <hr/>  |                    |
| 795 prime wheat weighing.....                      | 838.87             |
| 24 raked wheat weighing 62 lbs.....                | 24.89              |
| 64 screenings and headings weighing 56 lbs.....    | 59.73              |
| 883  | 923.40             |

883 divided by 18 4-10 gives 48 bushels (measured) per acre. 923.40 divided by 18 4-10 gives 50 18-100 bushels of 60 lbs. per acre.

| THE 9 1-10 ACRES YIELDED,                          |        |
|--|--------|
| 495 prepared, used for seed, weighing 63½ lbs..... | 528.87 |
| 7 prime, weighing 63 lbs.....                      | 7.35   |
| <hr/>  |        |
| 502 prime, weighing.....                           | 531.22 |
| 12 raked wheat, weighing 62 lbs.....               | 12.40  |
| 46½ screenings and headings, weighing 56 lbs.....  | 43.41  |
| 560½   | 587.02 |

560½ divided by 9 1-10 gives 61 6-10 bushels (measure) per acre. 587.02 divided by 9 1-10 gives 64½ bushels of 60 lbs. per acre.

**A MAN'S BODY A LIVING STOVE.**

The *Eclectic Review*, treating of the caloric or heat in a human body, compares our body to a "living stove—walking fire-places—furnaces in the flesh," if those terms can be applied to any apparatus for the express production of human caloric. After stating the fact of the latent heat of the human frame, the writer says: Suppose it to be the month of January, when winter is presumed to be reigning in full vigor, and every inanimate object appears to have been drained of its caloric; still the human structure will exhibit a surplus of sixty degrees above the freezing point. Why is this? How does it happen that while a bronze statue fluctuates in its temperature with every passing breeze, the living organism maintains its standard heat unimpaired, and preserves its tropical climate within, although the air should be full of frost and the ground enveloped in snow? It is manifest that we must have some power of "brewing" caloric for ourselves. Assuming that our bodies are veritable stoves, the reviewer proceeds to explain where we procure our fuel. Fortunately our coal and fire-wood, he adds, are stored up in a very interesting form. They are laid before us in the shape of bread and butter, pudding and pies, rashers of bacon for the laborer, and haunches of venison or turtle soup

for the epicures. Instead of being brought up in scuttles, they are presented in tureens, dishes, or tumblers, or all of them in pleasing succession.

Speaking seriously, and looking at the question from a mere human point of view, could any project appear more hopeless than one for burning fuel in a soft, delicate fabric like the human body—a fabric composed, for the most part of mere fluids—a fabric that might be easily scorched by excess of heat, or damaged by excess of cold? Does it not appear like a touch of quixotism in nature to design a stove with flesh for its walls, veins for its flues, skin for its covering? Yet here, we have seen, is an apparatus which, as if by magic, produces a steady stream of heat—not trickling penuriously from the fountains, but flowing on day and night, winter and summer, without a moment's cessation, from January to December.

Carry this splendid machine to the coldest regions of the globe—set it up in a scene where the frosts are so crushing that nature seems to be trampled dead—it still pours on its mysterious supplies with unabated profusion. It is an apparatus, too, which does its work unwatched, and, in a great measure, unaided. The very fuel which is thrown into it in random heaps is internally sifted and sorted, so that the true combustible elements are conveyed to their place, and applied to their duty with unerring precision. No hand is needed to trim its fires, to temper its glow, to remove its ashes. Smoke there is none, spark there is none, flame there is none. The pulmonary chimney is never clogged with human grime. All is so delicately managed, that the fairest skin is neither shrivelled nor blackened by the burnings within. Is this apparatus placed in circumstances which rob it too fast of its caloric? Then the appetite becomes clamorous for food, and in satisfying its demands the fleshy stove is silently replenished. Or, are we placed in peril from superabundant warmth? Then the tiny flood-gates of perspiration are flung open, and the surface is laid under water until the fires within are reduced to their wonted level. Assailed on one hand by heat, the body resists the attempt, if resistance be possible, until the store of moisture is dissipated; assailed on the other by cold, it keeps the enemy at bay until the hoarded stock of fuel is expended. Thus protected, thus provisioned, let us ask whether these human hearths are entitled to rank among the standing marvels of creation? for is it not startling to find that, let the climate be mild or rigorous, let the wind blow from the sultry desert or come loaded with polar sleet, let the fluctuations of temperature be as violent as they may without us, there shall be still a calm, unchanging, undying summer within us?

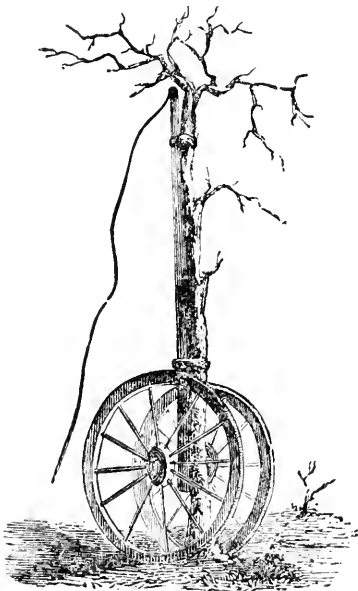
**A WORD FOR BLACKSMITHS.**—Dr. Dadd, in closing an article in the *American Stock Journal*, on Shoeing Horses, says: "It is my firm belief that blacksmiths are often, very often, blamed without any rational excuse for censure." And even in regard to *bad* shoeing he remarks: "It is my opinion that many smiths do not obtain a fair compensation for their services in the prosecution of their laborious and dangerous vocation."

## MOVING TREES.

There are few places which are ornamented with shrubbery, fruit, and shade trees, where it does not become necessary to change the place of some of them, in order to prevent their standing too thick, destroying a prospect, or injuring some building or plant more valuable than itself. The tree to be removed, however, has been tended with cost and care, and is needed for some other unoccupied place. It has gained considerable size, and the question arises—"How can it be removed with certainty of success?" The common mode of digging about them, and removing by hand, is a slow, difficult and uncertain one, as the earth in most cases falls away from the roots, leaving them exposed to sun and wind, and injury in conveying it to its place of destination.

Where a trench is dug about a tree, and the ball of earth is left to be frozen, there is less danger of injury to the roots, or of losing the tree itself.

After we have carefully dug about a tree, we need something to aid us in lifting it from its bed and in transplanting it gently to the hole that is to receive it. It cannot be placed upon a cart, or upon a drag, and keep the earth attached to the roots and fibres by which it is to be sustained—the motion to get it upon either will usually shake it all off.



The little, inexpensive machine figured above, it seems to us, would greatly facilitate the labor of moving trees, and at the same time enable us to do the work so as to secure the life of the tree.

The editor of the *Horticulturist*, from whom we have procured this cut, says "it illustrates a very

convenient contrivance for moving large trees. The cut almost explains itself. The truck is backed against the tree, the tongue thrown up against the body, and secured by stout cords. The earth is then removed from around the roots, the tongue pulled down by means of the rope attached to the end of the tongue, a team hitched fast, and the tree removed to its new quarters. The truck is placed over the hole in which the tree is to be planted, the tongue thrown up, and the tree is then in just the right position for filling in the earth."

Most farmers could rig up one of these machines with trifling cost, if, indeed, there were any, because there is usually an old pair of wheels and a cart nib that can be spared as well as not. One machine would answer the purposes of a whole neighborhood, and would undoubtedly save in time, annually, more than its entire cost.

The wheels and axletree of a common ox cart would answer a pretty good purpose for trees of considerable size, by lengthening the nib, and the forward wheels and shafts of a common light wagon might be made to answer for small trees.

**RULES FOR OBSERVING THE BAROMETER.**—The following rules for observing the barometer, taken from Prof. Silliman's lectures, may aid in making the use of this instrument more clear to many of our readers:

1. The sudden fall of the mercury is usually followed by high winds and storms.
2. The rising of the mercury indicates generally the approach of fair weather; the falling shows the approach of foul.
3. In sultry weather the falling of the mercury indicates coming thunder. In winter a rise indicates frost. In frosty weather a fall indicates thaw; a rise, snow.
4. Whatever change of weather follows a sudden change in the barometer, may be expected to last but a short time.
5. When the barometer alters slowly, a long continuation of foul weather will succeed if the column falls, or of fair weather if the column rises.
6. A fluctuating and uncertain state of the barometer indicates changeable weather.

**MILK BEFORE CALVING.**—Mr. J. E. Hazelton, of West Newton, has a heifer two years old last spring, which began to give milk about two months ago, and has continued to yield from three to four quarts per day, to the present time, Nov. 10th, when she dropped her first calf, which is in fair condition, and likely to thrive. The heifer is half-blood Jersey, and was raised by Judge French. A similar instance occurred in the stock of the editor of this paper, in which case the calf was dropped about four months after the heifer commenced giving milk.

For the New England Farmer.

### "REMEDY FOR CHOKED CATTLE."

MR. EDITOR:—Under this heading you gave, by request, a republished article, in the *Farmer*, Nov. 3d, upon the removal of foreign or lodged bodies in the gullet of animals, viz.: cattle.

Your instrument has for its recommendation that of being cheap, easily made, its mode of use readily understood, and of sufficient strength, if the power is applied, to overcome almost any obstruction, or even make an artificial passage in the most vulnerable point.

But a thought—the thought—that "a common broom-handle" is rather a formidable instrument to use in cases of this kind unless used with much precaution; and though the illustrations and directions for making and using are remarkably plain, yet with only this caution, "then gently press the stick, or probang, down the throat," as not being quite positively cautious enough in these dangerous accidents when "all hands" are so liable to be excited unduly.

As an illustration of this unnecessary excitement a case in point will suffice.

Not long ago I saw a noble ox that attempted to eat a potato while at work, but was choked. The owner called a doctor of medicine to counsel, and living in a village, there were enough assistants. They put him into the shoving slings, and with a common ox-goad pushed it down, or at least pushed the goad down, but in so doing lacerated the gullet, as it afterwards proved.

From the choking, the means used, and the very violent muscular exertions of the agonized ox, he died in a few minutes after, while they were preparing "to tap." I did not see him till the ox-goad had done its work of mischief.

Ought it not then to be emphatically enjoined on the operator to gently push the stick, as this accident of rupture is liable to occur?

Would it not be advisable to use a flexible stick, if the emergency demands a resort to this mode of relief, when a *bona fide* probang is not at hand, as, with its use, the liability of a fatal accident would be somewhat less, while at the same time it would be abundantly efficient to apply as much force as would be admissible?

Is not the bulb end rather large, (2½ inches in diameter,) unless it is for large cattle? The danger of cattle getting choked with things of this size is quite small, if any, but rather with potatoes, or the like, much smaller.

Would it not be better, before resorting to the probang, to pour down the creature a half pint of oil to lubricate the passage, and by manipulations for its ejection, or injection, quite perseveringly, try a much safer mode of procedure?

In good old "tater" times, it was not a very uncommon occurrence, hereabouts, for cattle to get choked, and we ruralists could almost always get the offender up or down—up, was preferred,—with but little difficulty, when it was lodged in the upper part of the passage, or where it could be felt externally, by tying the creature to a post or stanchion, by the horns, and having one fore foot held up by a rope or strap over the back, and manipulations.

Perhaps this may be called rather a primitive mode by some, but it has been all efficient in so many instances where probangs and veterinary

surgeons had not even been heard of, in bygone days, that, with the oil modification, I have quite a good opinion of its efficiency.

This is an important subject, and any light or knowledge upon it that you or your many intelligent correspondents can emit through the columns of the *Farmer*, will be useful to others in emergencies of this kind.

The more simple and efficient ways known the better, yet it is not intended to be intimated that the probang will not be required in some obstinate cases, and then that some will prove fatal if even œsophagotomy is resorted to with the aid of experienced counsel, which is unfortunately not often to be obtained in rural districts in a reasonable time.

But as the veterinary art is justly receiving more attention, it is to be hoped that ere long the services of those who are qualified can readily be obtained when serious accidents happen to any of our domesticated animals. O. W. TRUE.

### THE WEALTH I'VE GOT.

BY HENRY MORFORD.

Not houses and lots in a principal street,  
Not rich fields flowing with golden wheat,  
Not darksome mines deep stored with gold,  
Not piles of ingots in coffers old;  
Not these, though they fill so many a lot—  
These form no part of the wealth I've got.

I'm poorer to-day than a year ago,  
I was poorer then than I cared to know,  
The future has nothing but struggle and care,  
For the bread to eat and raiment to wear—  
Yet I still look onward and murmur not,  
For I'm very rich in the wealth I've got.

I've kind ones to love me, rich or poor;  
I've friends whom I hold with a friendship sure;  
I've pleasures and duties, day by day,  
And work for each hour that passes away;  
I've a home with its treasures—earth's dearest spot—  
Where I hoard, like a miser, the wealth I've got.

I've a heart, thank God! that loves mankind;  
I've a spirit, thank God! that can be resigned:  
I've a hope to finish some trifle of good  
Before I lie down for the grave-worm's food;  
I've a hope that neither stain nor blot,  
Will cling, when I'm gone, to the wealth I've got.

I've a trust in the Master whose tender care  
Giveth bread to eat and raiment to wear;  
I've a firm, stout heart, that he giveth me,  
To bear whatever my fortune may be;  
So earth can be never a sorrowful spot,  
While kind Heaven leaves me the wealth I've got.

FAIRS.—The editor of the Michigan *Farmer* gives a table of entries at the Annual State Fairs of 1860 and 1859, from which it appears that there was a falling off this year equal to 25 per cent. in every department. He also says:—"We have looked carefully through all our country exchanges of this State to see what was said of the several county fairs that have been held this fall, and find them almost without exception filled with complaints of apathy and want of interest, desolate halls, empty tables and dissatisfied lookers-on."

*For the New England Farmer.*

### FENCE POSTS---HOW TO SET THEM.

A late number of the *Farmer* contains an inquiry by R. H. Davis, in regard to setting fence posts in land that heaves with the frost. Being desirous, some years ago, to erect a permanent dooryard fence on similar land, I addressed the same inquiry to the *Farmer*, to which several replies were published, containing directions, most of which had been previously tried, and found unsatisfactory. These plans were to set the posts so deep they would reach below the frost, or dig large post holes, and fill with small stones, chip manure, sand, &c., or securing the post by a tenon and pin to a horizontal timber laid below the frost.

Now all of these, and similar methods, will fail of securing the object desired, because it is the presence of water in the earth that causes the post to rise with the frost. As the earth freezes, and adheres firmly to the outer surface of the post, it must of necessity heave with the frost, however far it may extend below the frost, and of course it would, with the same facility, be drawn from a mortice. In the case of setting the posts with small stones, &c., the spaces between the stones will soon fill from the surface and surrounding earth with water, which, freezing to the post, will cause it to heave, and leave its proper position. In soils that retain but little water, posts may be set quite securely for a time by filling a proper space around the post, and as far in depth as the frost extends, with gravel stones, or refuse tan bark. But there is a better way.

The practical adoption of the plan I now propose may look formidable and expensive, but it will prove satisfactory, permanent, and last a lifetime. The first step, as has already been suggested, is to draw off the water. To do this, dig a ditch on the line where it is proposed to make a fence, two feet wide and three feet deep, or below the frost. Set the posts in this ditch, say eight or ten feet apart, as may be desired, and fill around the posts and the whole ditch with small stones. It is best to make the ditch wider, say three feet, where the posts are set, and jam the stones tight around. To this ditch now dig a drain, without which all previous labor will be vain, laying tile, or stones at the bottom, and filling above with earth, and the work is done.

Having followed this plan several years ago, with entire success, I confidently recommend it, as the best way to set posts in frosty land. It is proper to remark, that where the land is so situated as to preclude draining as low as the bottom of the posts, so there shall be no standing water around the posts, this plan will be impracticable.

S. G. B.

*Essex, Vt., Nov., 1860.*

**SOUTHERN ILLINOIS.**—Mrs. Frances D. Gage says in a communication to the *Ohio Farmer*, that “the seasons are so long in Southern Illinois that I am sure sweet potatoes planted here in April, might be eaten by the first of August in good seasons; and planted the first of July, they would ripen in October, for winter use. Some broom corn came up in our garden in the middle of May, and

ripened; as there were but a few stalks, we paid no attention to it. The seeds fell, and new sprouts came up and ripened also, sufficiently to have been lopped before the frost came; two crops could be easily raised, I think.”

### CONCORD FARMERS' CLUB.

The second meeting of the series for the season of this association took place on Friday evening last, the subject for discussion being “*Fruits, and their Culture.*” It being the turn of JOHN B. MOORE, Esq., one of the largest and best farmers of the town, to prepare an Essay, he read the following on

#### FRUITS AND THEIR CULTURE.

MR. PRESIDENT:—The subject assigned for discussion this evening is a very interesting one to me, but has so wide a range that I do not propose to examine it in detail, but to confine myself to the Pear and Grape, only.

The Pear is a fruit worthy of more general cultivation than it now receives. I am aware of the extensive attempts to cultivate it, and also of the fact that there has been a large quantity of pear trees planted within fifteen years, and that of these nine-tenths have failed from bad planting and want of care.

I think there is but one way in which pears can be grown successfully, so as to equal the fruit raised by Cambridge and Brighton cultivators—and that is by high cultivation. The pear wants a deep, rich soil, not too wet and never dry. The trees should be partially sheltered, so as not to suffer by high winds, which injure the young and tender shoots early in the season, and blow off the fruit at a later period. The pear wants in the soil a plenty of manure, and also bone in some form. One successful cultivator has plowed in heavy dressings of sheep's feet with decided advantage, it being a manure that will last for years. The common dressing applied by the best cultivators is about eight cords to the acre of horse manure in a green state, spread on in the fall and forked in the next spring, with an occasional dressing of ashes and bone. By this high manuring, with clean cultivation, and without raising any crop among the trees, those persons have succeeded in raising very fine fruit.

The Cambridgeport cultivators have their trees mostly on the quince bottom, planted about eight feet apart, and trimmed in pyramid shape. After the trees become established, they are summer-trimmed nearly as follows: in July, shorten the new wood one-half in length, and pinch back the new growth the rest of the season; this is considered the best way of pruning the pear on the quince, by many intelligent cultivators; on the pear root they are allowed to extend more and to grow into large trees. As to varieties, probably no two persons would agree, precisely; some varieties do well in any location, for instance, the Bartlett—others only in certain soils, as the Beurre Bosc. For market purposes, not only quality but outward appearance becomes necessary to make them sell well. A pear with a handsome yellow color, or yellow with a blush on one side,



or a pear covered with a yellow russet, sells the best; while a green-skinned pear is not so attractive in appearance, and does not sell nearly as well. As an instance of the effect the difference in appearance of this fruit has on the price, I find that the Belle Lucrative, one of the finest pears of its season, sells badly, owing to its green color, while the Duchess d'Angouleme, a third-rate fruit in quality, sells readily at high prices, owing to its size and beauty.

Most persons entering upon the cultivation of this fruit set too many varieties; they will succeed much better by planting only a few of the best kinds of well established reputation in the market, varieties that will grow vigorously, bear well, and the fruit of large size and handsome; if fall pears, kinds that will keep a few days without rotting at the core.

#### NOW AS TO THE GRAPE.

A variety of the grape to be worthy of general cultivation in Massachusetts should possess the following qualities, all of which are necessary to make it come up to what should be our standard of excellence:

First, it should be as hardy as an oak,—one the wood of which will winter without any kind of protection; a free grower, an abundant bearer, the branches large and with good-sized berries adhering strongly to the stem, so that they will not easily drop from the bunch, ripening early in the season, and not subject to mildew or blight. Added to the before-named requisites, the fruit should be of fine quality, as good as the varieties raised under glass, if possible. We have varieties combining all these requisites, except quality. That is to say, we have no hardy grape equal in quality to the varieties raised under glass, but still we have varieties of fine quality that are worthy of extensive cultivation, and I think no one of them more so than the Concord. Some of our horticulturists are raising seedling grapes, hoping to succeed in getting a better variety than we now have, and we shall undoubtedly get from them a superior variety within a few years.

For a long time many of our eminent horticulturists have attempted to improve our wild grape by hybridization with foreign varieties which are tender in our climate, hoping to get a variety combining the hardiness of the wild with the fine quality of the foreign grapes. These trials have all proved failures. They either prove to be not hardy, or are late, or subject to mildew or blight.

Recently, cultivators began to raise seedlings from some of the best native varieties, and have succeeded better, having raised some pretty good grapes—among them the Concord, Northern Muscadine, Hartford Prolific, Diana and a number of other kinds which are better than the original sorts. From these repeated attempts I think we may look for new and better varieties. I have seen two new seedlings raised in this way which I think are better than any of the above varieties, particularly as table grapes; they were raised from seeds of the Concord. One of them is very promising, in color resembling the White Nice, with a heavy whitish bloom, berries and bunch large, and without any foxy taste whatever; flesh rather firm, quality equal or nearly so to the foreign varieties. I have examined the original vine, which is now growing in an unfavorable location,

shaded and crowded by other vines, never having had any protection, and not an inch of the wood has winter-killed, nor is there any mildew or blight, while near by this were other vines covered with mildew.

The question that has often presented itself to my mind is this: Is it an object to enter into the cultivation of the grape for the purpose of supplying the demands of the market? Good judges estimate that an acre of Concord grape vines, set eight feet apart, or four to the square rod, being 640 to the acre, will produce, the fourth year after planting, twenty lbs. of fruit to each vine, which would be 12,800 lbs. to the acre, which would probably be worth 10 cts. a lb., amounting to \$1,280 per acre; deduct one-half, and still it would leave \$640, which would pay largely for the cultivation and capital invested.

And for the purpose of wine-making, persons are willing to contract for large quantities of the Concord, at five cts. a lb. Of the manner of planting and general cultivation, I do not intend to say much, and will only add, that the grape is not very particular as to soil, if not too wet. Any soil sufficiently rich to bear fifty bushels of corn to the acre will be rich enough for the grape.

The location I regard as of much more importance than soil; and I mean, by location, a situation where the vines will escape the late spring frosts, which are much more destructive than the frosts in the fall of the year.

There has always been a large demand for good table grapes; that demand has increased very much within a few years, and is not one-quarter supplied now. The drawback to raising them has been the want of a good variety, that will ripen early in the season; but with some of the newly introduced kinds this is somewhat obviated. The prices at which hot-house grapes now sell, put them beyond the reach of persons of moderate means, except as a luxury. What we want is a hardy grape, equal in quality, if possible, to the foreign, to supply the wants of the whole community, at a low price, and so abundantly as to be within the reach of all. When we find such a variety, whoever in old Middlesex enters into its cultivation will reap an abundant reward for his labor. The new seedling that I have described comes nearer to this want than any grape that I know.

Of the manner of pruning, I will merely say that I have tried the various methods described in the books, and much prefer what is called spur pruning.

There are many farmers, and other cultivators, who think that a wild vine, taken from the woods, or some location where it has been uncultivated, and put into a garden under good cultivation, will immediately come up to the Concord, Isabella or Catawba, in size and quality, which is erroneous.

The size and productiveness will be somewhat increased, but not the quality; or if the quality is affected, only in a very slight degree. A gentleman living within ten miles of Concord, called my attention to a variety of grape exhibited by him, and grown on his farm, as something superior to any other grape, and remarked to me that there was "no grape equal to his, which grew away down in the corner of the wall." In the judgment of the committee on grapes, it was remarkable only in one way, and that was for its ex-

tremely bad qualities. I had the pleasure of presenting him a few Concords and Dianas, and he became satisfied that his was really no great thing after all!

*For the New England Farmer.*

#### ENTOMOLOGICAL.

MR. EDITOR:—Some time since I sent you specimens of an insect new to me, or at least rare heretofore in this region. As no description of them has appeared in the *Farmer*, I venture to send you this, hoping that from it some professional entomologist will be able to tell what they are.

Length to tip of abdomen 0.25, to tip of wings 0.40 long. Antennae, black, hairy, erect, four jointed, 0.50 long. Head, small, brownish-black; eyes, small, brown; thorax, brownish-black, slightly hairy, 0.10 long; wings four, hairless; fore wings brownish-black, purplish in sun, transparent; veins at base, whitish, black at tip; conforming to abdomen, to tip of same, concealing hind wings; then erect, the under sides touching, 0.30 long; hind wings white, veins black, 0.15 long; legs, six, three jointed, hairy, brown; tip, with a single stout claw, 0.25 long; abdomen, conical, black, somewhat hairy, encircled by eight pale yellow bands from thorax to tip of abdomen. Found mainly upon the trunk and large limbs of many kinds of trees; only seen this year between Aug. 8th and 26th; then very numerous, coming and disappearing almost at the times named.

Are they a new enemy added to the already frightful list, or are they useful? S. A. N.

*Georgetown, Mass.*

REMARKS.—We received the insects sent by "S. A. N.," and some of the same from one or two other sources. They were quite numerous upon our apple trees, clustering close together, and upon approaching, or touching them, would rapidly diverge in every direction like the rays of a star, and in a few moments return and cover a spot not larger over than half a dollar. We wish to inform our obliging correspondent that we have made repeated application to such entomologists as we have access to, in order to learn the name and habits of the insects he sent us, but as yet without success.

RIUBARB WINE.—A correspondent of the *Prairie Farmer* who attended the State Fair of Wisconsin, says, the several specimens of pie-plant wine which we tasted were really delicious, wholesome, and much better than any "boughten" wine we get—even surpassing the best currant wine.

AGRICULTURAL REPORTS OF CALIFORNIA.—The Editor of the *California Farmer* complains roundly of this State publication. "The presswork is miserable, and when we come to examine the matter, we find it worse. The work abounds in errors, which are a disgrace to any printer, proof-reader, or editor," &c., &c.

*For the New England Farmer.*

#### FLOWING WITHOUT CONSENT.

MR. EDITOR:—One of the most important petitions for legislative action before the last General Court, it seems to me, was that in relation to the flowing of the Concord and Sudbury river meadows. The whole course of action upon this matter, and the final disposition of it, was looked upon with deepest interest by many persons not immediately connected with the petitioners, who are subject, like them, to similar or even greater evils, from a like cause, and equally anxious for some enactment by which property so exposed may be preserved from ruin.

Now, as no final action upon the matter was had before the adjournment of the Court, would it not be well to call a public meeting, at some convenient place, of all persons throughout the State, whose lands are affected by flowing, as are those on the Concord and Sudbury rivers, for the purpose of consultation and concert of action with reference to some measures for general protection and benefit?

The existing law, giving to mill owners the right to flow any lands, under certain conditions, is, I believe, a part of the old Colonial law of Massachusetts, enacted for the encouragement of saw and grist mills in the neighborhood of settlements, at a time when such conveniences were of the greatest importance. It could never have been intended to empower the immense manufacturing corporations of the present day to avail themselves of a privilege which is manifestly ruinous to the property of so many farmers and land owners in the Commonwealth. Nor could it have been anticipated that the grant of such a privilege would become so detrimental, as it is now known and acknowledged to be, to the public health, where large bodies of meadow land are annually flowed in this way.

We have the testimony of medical men to facts in relation to this matter, which are of serious importance to the public. And we have been told by counsellors of the highest authority, that the existing law in this Commonwealth, in relation to the flowing of lands by mill owners, is essentially different from that in almost every other State, and much less favorable to land owners.

In common with many others, I should be glad, Mr. Editor, if you and others interested in the subject, would consider my suggestions, and if it is thought advisable, that a public meeting be called as early as possible, before the approaching session of the General Court.

NORFOLK.

Nov. 12, 1860.

REMARKS.—We are glad to receive and publish this communication, and to learn that the Norfolk county people are looking to their true interests in this important matter. "Middlesex," we do not doubt, will respond to a call by "Norfolk," to hold a public discussion of this matter. Now is the time, while the weather is favorable, to bring out a large collection—and the time to prepare matters for the coming Legislature. The inhabitants of Concord river valley, and those of Norfolk county, have already spoken, and those of other localities, we know, are preparing to do the

same. The curse of flowing a man's land without his consent, rests heavily upon many of the citizens of Massachusetts. That curse must be removed, and we earnestly hope that every farmer in the State, at least, will help on the good work. Let us hear from Norfolk soon, and give notice of a public meeting.

*For the New England Farmer.*

#### EXPLANATIONS ABOUT SHINGLING.

MR. EDITOR:—Your correspondent wishes me to be more explicit as to my mode of shingling. I will try.

After laying the first course, I line with red chalk. Then I whitewash down to the line, or a little lower. I do not intend to put a nail more than one inch from the centre of the shingle. If the shingle is more than four inches wide, I put two nails in it and I do not intend to drive the nails down so as to sink the heads. I do not care how the nails are placed if more than one is used, whether one above the other, or side by side; but if side by side, not more than two inches apart. If the roof is boarded up and down, be sure that both nails—if you put in two—are driven into the same board. I have never been troubled with the snow blowing in through the roof, although I lay the roof as open as I can, and have good nailing for the shingles. After I have shingled I whitewash the whole roof.

My object in putting the nails near the middle of the shingle is, if the shingle is dry to keep it from huffing, and if the shingle is wet or green, to keep it from splitting. I am speaking of wide shingles. My object in not driving the nail quite down is, to hold up the butt of the next shingle so that there will be a free circulation of air.

If we were to sow a coat of slaked lime or fine salt, or both, over the roofs of our buildings once in two or three years, it would add greatly to the time the shingles would last. I like to have my whitewash made with brine, or salt put into it.

Your correspondent proposes to run a straight edge. I have tried that, but you do not see as readily whether you are breaking joints well with it, as you do with a line.

#### ASHES ABOUT YOUNG APPLE TREES.

Now is the time to put ashes around young apple trees exposed to mice in the winter. About a half a shovel full piled up around the body of a tree has always been a sure preventive to mice girdling them even when set by the side of a wall.

ED. EMERSON.

*Hollis, N. H., Nov. 12, 1860.*

AGRICULTURAL IMPLEMENTS.—The *Country Gentleman* notices the fact that the official tables of our exports published at Washington, throw no light upon the value of agricultural implements sold to other countries; for, strange as it may seem, while they descend to such items as "printing presses," "candles," and "combs,"—plows, horse-powers and hoes are left in the heterogeneous mass of "manufactures of iron," or "manufactures of wood."

*For the New England Farmer.*

#### SUGAR AND SUGAR-MAKING.

I have a camp on a side hill, 30 by 40 feet, with a wall on one side about 12 feet high. A cement cistern is situated in the bank above the camp by which the road passes. I have two haulers, or tubs, holding twenty-five 16 quart pails full each, with an India-rubber hose, one and three-fourths inches in diameter, connected with each hauler by a cast iron tube, made for the purpose. While gathering, I hook the other end on top of the hauler. I drive by the side of the cistern and let down the hose and the haulers are soon emptied through a strainer into the cistern. A one-inch lead pipe leads from the bottom of the cistern, through the wall, over the top of a cauldron kettle, with a faucet to draw sap out when needed, and also for filling. There is also a self-acting faucet of my own contrivance, which keeps the kettle just so full. There are three arches, with four pans, all passing around the cauldron to one chimney. The cauldron sets so as to have the sap 12 inches higher than the sap in the pans.

I use a syphon made of half-inch pipe, running from the cauldron to each pan, with the same self-acting faucet attached to each, that keeps the pans at the desired height all the time while boiling. After heating in the cauldron, I use the galvanized pans to syrup down and sugar off in. I have a crane to which is attached an apparatus for raising the pans on a level, so that I can easily take off the syrup without putting out the fire. But the greatest advantage is in sugaring off.

I usually sugar about sixty pounds at a time. When I first put in my syrup I build a good fire which will not need replenishing. As the sugar advances from one stage to another, I commence raising the pans from the arch, say four inches, then twelve inches or twenty-four inches, according to the fire, so there is no danger of burning, for a cool breeze of air will pass freely under the pan. I can then swing it off and let it down on to the floor, where I use a tray 2 feet by 6 feet, and a new hoe for stirring. My sugar land is mostly level, and I tap 1100 trees. I should prefer galvanized pans, 2 feet 2 inches by 5 feet 10 inches, in one sheet.

If any one wishes for more information I will freely give it.

#### MOWING MACHINES, ETC.

I bought one of Ketchum's mowers, the past season, and am well satisfied with it. I shall fix it so as to cut my grain next year. I use a one-horse power for threshing, also a circular saw, and I attached last June, what is called the lazy man's saw, on a new plan. It runs on a level and works well. It also runs a grater for making cider. I grate from ten barrels to fifteen barrels per hour. Also, I lead my horse in and wash every week. I can do a common washing for five or six persons in from twenty to forty minutes; I do not mean boiling and rinsing. It does not wear the clothes, though wristbands and collars need some rubbing. I am one for improvements.

*Sutton, Vt., Nov., 1860.* ERASTUS WAY.

LARGE CHEESE.—A cheese weighing 1,620 lbs. was exhibited at the Wisconsin State fair.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 7.

O W L S .

American Barn Owl—Cinereous Owl—Barred Owl—Long-Eared Owl—Short-Eared Owl.

THE AMERICAN BARN OWL, (*Strix Americana*, Aud.) is found throughout the United States, and is seen as far north as the 44th degree of latitude, but, according to DeKay, is more particularly a southern species, and is observed to be quite common in the Southern States, where it is resident. It so closely resembles the *Barn Owl* of Europe, (*Strix flammea*.) that it was formerly described as identical with it, and accordingly the history of both species was blended together. Its favorite food is meadow mice, and other small quadrupeds, swallowing them nearly whole, and afterwards expelling by the mouth, in small, dry balls, the hair, bones, and the other indigestible portions; this practice prevailing throughout the Owl tribe. The favorite places of resort of this Owl are hollow trees, in which it doubtless breeds; and it is sometimes found reposing in old barns; hence, probably, the origin of its name. Its European congener is famed for making old ruined castles, towers and churches its favorite haunts, from whence its savage cries at night give, to many minds, a cast of supernatural horror to those venerable, decaying piles of antiquity.

The length of this species is fifteen inches; breadth of wings, three feet, eight inches; the disk of radiating feathers around the eyes is remarkably concave and extended, rendering the physiognomy of this bird more remarkable than that of any other night-bird; whole upper parts bright tawny yellow, variegated with oblong spots of white, and finely sprinkled with whitish and pale purple; lower parts white, interspersed with blackish spots.

THE GREAT GREY OWL, or CINEREOUS OWL, (*Syrnium cinereum*, Aud.) though one of the largest and most formidable of the Owls, is but little known in this part of the country, it chiefly residing in Labrador, and around Hudson's Bay, occasionally retiring southward in the severe weather of winter, visiting us at rare intervals, but is probably more common in the northern parts of New England. Only one or two instances are recorded of its having been taken in this State. It is described as common in the desolate northern regions of the eastern continent.

It constructs its nest in the tallest trees, usually selecting evergreens. This Owl is thirty inches in length, and four feet in alar extent; color, grayish-brown, variegated with grayish-white on the upper parts, and with yellowish-white below. Like all the species of Owls yet described, it is destitute of ear-tufts, or "horns."

THE BARRED OWL, (*Syrnium nebulosum*, Aud.) the American representative of the *Tawny Owl* of Europe, (*Strix stridula*, Linn.) is described as one of our most common species by Wilson and Audubon, being found abundantly in various parts of the United States, particularly in Louisiana, according to Audubon, and generally seems to be more common in the Southern States than elsewhere, though resident in most parts of the country. It has been seen quite far to the north, and is said to be rarely met with in Northern Europe. It prefers the solitude of dense forests,

breeding in trees, and laying white, globular eggs. "Its power of sight during the day," says Audubon, "seems to be rather of an equivocal character, as I once saw one alight on the back of a cow, which it left so suddenly afterwards, when the cow moved, as to prove to me that it had mistaken the object on which it had perched for something else;" yet the same ornithologist speaks of having seen them fly more than two miles, from one piece of woods to another, in broad daylight. The whole of Mr. Audubon's account of this Owl is very interesting, and I transcribe a single passage. "How often," says he, "when snugly settled under the boughs of my temporary encampment, and preparing to roast a venison steak, or the body of a squirrel, on a wooden spit, have I been saluted with the exulting burst of this nightly disturber of the peace, that, had it not been for him, would have prevailed around me, as well as in my lonely retreat! How often have I seen this nocturnal marauder alight within a few yards of me, exposing his whole body to the glare of my fire, and eye me in such a curious manner, that, had it been reasonable to do so, I would gladly have invited him to walk in, and join me in my repast, that I might have enjoyed the pleasure of forming a better acquaintance with him. The liveliness of his motions, joined to their oddness, have often made me think that his society would be at least as agreeable as that of many of the buffoons we meet with in the world. But as such opportunities of forming an acquaintance have not existed, be content, kind reader, with the imperfect information which I can give you of the habits of this Sancho Panza of our woods."

This is an extremely noisy species, uttering its cries from all parts of the woods at the approach of evening, and in lowering weather becomes extremely vociferous, even in the day-time, and in the evening they respond to each other in tones so strange, that one might suppose some extraordinary fete about to take place among them; and their gesticulations when approached, are of a remarkable and very ludicrous nature. If shot at and missed, it utters its cry of *whah-whah-whah*, with much pomposity. Though the usual food of this bird is mice and small game, it sometimes attacks young rabbits, partridges and poultry.

There is much difference in the size of the males and females of this species, the male generally measuring sixteen inches and a half in length, and thirty-eight inches in extent; the female twenty-two inches in length and four feet in extent. Upper parts, pale brown, barred with transverse spots of white, and on the wings with dark brown and white; breast, barred with transverse rows of brown and white dots; belly, yellowish, streaked longitudinally with long stripes of brown, without ear-tufts.

THE LONG EARED OWL (*Otus vulgaris*, Flem.) observes Nuttall, "like several others of this genus (*Strix* of Linn.) appears to be almost a denizen of the world, being found from Hudson's Bay to the West Indies, throughout Europe, in Africa, northern Asia, and probably China, in all which countries it appears to be resident; but seems to be very abundant in certain places in winter, following rats and mice to their retreats in or near houses and barns. They commonly lodge in ruined buildings, the caverns of rocks,

or in hollow trees." They are known to breed, however, in the tops of trees, often in the deserted nest of some other bird. It lays four eggs, nearly round in form, and pure white. This Owl is frequently seen abroad by day, but has nothing remarkable in its voice or habits.

This species is fourteen inches and a half long, and three feet two inches in extent; ear-tufts large, of six graduated feathers, black, edged with rusty yellow; upper parts, dark brown, sprinkled and spotted with white, pale, ferruginous, and dusky; throat and breast, clouded with rusty cream, and black and white; belly, beautifully streaked with large arrow-heads of black. A fine specimen of this beautiful Owl was taken a few days since in this vicinity.

The SHORT EARED OWL (*Otus brachyotus*, Cuv.) is another species common to both continents. It is occasionally seen in England; is abundant in the forests of Labrador, and Sir W. Jardine speaks of having received specimens from Canton, in China. It is a bird of passage, coming to us from the north in November, and leaving us again in April for its northern breeding places. It feeds upon mice and other small game, silently watching for its appearance from some convenient perch, instead of hunting for it on the wing, as do most of the Owls. Wilson has the following observations concerning it. "It flies frequently by day, and particularly in dark, cloudy weather, takes short flights; and, when sitting and looking sharply around, erects the two slight feathers that constitute its horns, which are at such times very noticeable, but, otherwise, not perceivable. No person, upon slightly examining this bird after being shot, would suspect it to be furnished with horns; nor are they discovered but by a careful search, or previous observation on the living bird." In England it is known as the *Woodcock Owl*, from its appearing at the same time with that bird; but in the extreme north of England, and in Scotland, it is known to breed. Jardine describes the nest as placed on the ground, among the heath; the bottom of the nest scraped until the bare earth appeared, on which the eggs were placed, five in number, without any lining or other accessory covering.

The length of this Owl is fifteen inches, breadth of wing three feet four inches, general color above, dark brown, broadly skirted with pale yellowish brown; beneath, yellowish, streaked with dark brown; tail long, rounded, crossed by alternate bars of dark brown and yellow ochre, and tipped with white. J. A. A.

CROPS IN ILLINOIS.—A correspondent of the *Prairie Farmer*, at Fair Haven, Carroll Co., writes that the threshing machines are disappointing the people this year just as much as they did last, but in a different way. Then every one expected more than he got; now every one gets more than he expects. People who expected 20 bushels of wheat to the acre get 25; those who expected 25, get 30. A part of ours has been threshed, and yielded 33 bushels per acre. Last year we had 17 bushels per acre, and the year previous but 6! and ours was a pretty fair average (I think) of this part of the country.

#### CIDER---HOW TO PREVENT ACIDITY.

Levi Bartlett, in the *Country Gentleman*, describes the stumming process (burning the cider with burning brimstone,) which he says he practiced many years ago with perfect success, thereby having cider which would exhilarate but not fuddle, nor produce headache:

There are three stages of fermentation to which cider is subject, viz.: the vinous, the acetous, and the putrefactive. When cider has passed through the vinous fermentation, if left unchecked it soon runs into acetous, and from this it soon passes into the putrescent fermentation, becoming ropy and worthless. Most of the cider put up by farmers passes into the second or acetous fermentation, becoming more or less sour and inebriating, and when drunk, by many persons, producing a flushed face and headache, and what is worse, producing crossness and ill temper in many of those that use it as a common beverage, and guzzle it down in large quantities. It would be far better to convert all such cider into vinegar. This making of a man into a cider cask is poor business.

If new cider is fermented in an open cask, after a time, longer or shorter, depending upon circumstances, all the heavier portions of extraneous matter, pomace, &c., will settle to the bottom of the cask, and the lighter flocculent matter will rise to the surface, forming a spongy, brown crust. Just as soon as the vinous fermentation has ended, cracks or fissures will appear in the crust, and small white bubbles of carbonic acid will fill the fissures of the crust. The liquor at this precise time is clear and bright. The grand secret of having a cider equal to pure wine, is to check the fermentation. If the cider is left to itself, the acetous fermentation follows—the sedimentary matter at the bottom of the cask rises, and the liquid becomes muddy—this, acting as yeast, produces a second and more violent fermentation, resulting in hard cider.

When the white bubbles begin to appear the crust should be removed, and the liquid drawn off without disturbing the sediment at the bottom of the cask. Pour two or three pailsful of the liquor into a clean, strong, tight barrel; then fumigate—that is, have prepared a long tapering bung with a looped wire inserted in the smaller end of it; in the lower end of the loop fix strips of cotton or linen cloth, dipped in melted sulphur, to form a good sized match, light it, and thrust it into the bung-hole of the barrel; the match will burn till the oxygen in the barrel is used up; then withdraw the match, put in a common bung, and tip the cask in "double quick time," to the right and left, so as to mix, as far as possible, the liquor and gas in the barrel; then fill it full, put in a tight-fitting bung, place it in a cool cellar, and in the course of a year or so, there will be a barrel of apple juice that "temperance" ladies and children can partake of without "a blush or a scowl."

ROUND dealing is the honor of man's nature; and a mixture of falsehood is like alloy in gold and silver, which may make the metal work the better, but it debaseth it.

## SCIENCE IS KING.

We are often told, perhaps for the purpose of intimidating the good Republicans of the North and their electors, that the South will not sell us her cotton if Mr. Lincoln goes into the Presidential chair, and if they cannot have their way another four years; and moreover, that they will dissolve the Union, fancying that that will punish us worse even than cutting us off from their cotton.

But there is a *material* interest at present coming into existence, which providentially will make us quite independent, comparatively speaking, of the cotton crops of the Southern States. Southern politicians declare cotton to be king; and as they grow cotton, they fancy themselves the dictators of Northern interests, which they know are largely connected with manufactures. But SCIENCE is king—not *cotton* nor (as Broderick on one occasion boldly responded to one of those haughty Southern gentlemen) *gold*. Science and art are the sovereign rulers of our national greatness and commercial prosperity.

The cotton gin has made the South rich, important, proud and imperious. But the same Northern ingenuity that invented a *cotton gin* has also recently invented another machine calculated to make as great a revolution in our commercial affairs as the invention of Eli Whitney brought about in the culture and manufacture of the cotton plant. The inventive intelligence of a Northern man has now brought forth, and is perfecting the machinery for converting *common flax* into a fibre and staple as white, fine, soft and silky as any cotton grown in Alabama or Georgia. Besides, the operation of the machinery is so simple, rapid and effective, that an incredible quantity of raw material can be worked in a short space of time.

The entire North and the boundless West can raise flax at the cheapest rate; and in two years we should not be dependent on the South for cotton fibre, if necessity compelled our manufacturers to turn their encouragement to textile materials of pure Northern growth. We have been recently informed that one manufacturing establishment alone can use (judging from their practical experiments) this *flax cotton* as a mixture with their cotton fibre, so readily as to make a saving of seventy thousand dollars per year, over their present profits; and that, to do this, it is not necessary to alter their machinery or the shape of a spindle.

It is utter madness for the Southern States to think of national prosperity, internal security and domestic happiness, when disunited from these Northern States. The prosperity of the North would not be interrupted by the secession of all the slave States. National prosperity depends on agriculture, manufactures, and a mercantile marine. We lack in the North only one agricultural product to make us wholly independent of the South—that is a textile fibre fit for a substitute in our manufactures for their cotton fibre. We have it in flax, and it can be raised by free labor in the Middle and Western States, and in all temperate latitudes, cheaper than cotton can be grown by slaves anywhere on the earth. The inventive genius and the capital of Massachusetts have already commenced this vast agricultural and commercial revolution. Machinery has already been set up in several regions of the West to effect the first processes in the manufacture necessary to prepare the raw material for bleaching and

reducing the flax into an almost silken fibre far more capable of receiving and holding colors than cotton.

Hundreds of acres will be added next year to this source of prospective industry and wealth. Thousands and millions will be added hereafter.

We shall not need so much cotton in a year or two as we have been in the habit of using; and if compelled to pay a very high price for it, and pay the cash in advance, we shall the sooner be disposed to encourage Northern agriculture and free labor. England will not be long in following our example; and if, in ten years from now, the South finds less use for her slaves, and is compelled to sell her cotton very cheap, and to beg purchasers wherever she can find them, even on the curb-stones of Boston, she will have only South Carolina to thank for the prostration of her great interest.—*Boston Journal*.

For the New England Farmer.

## KING PHILIP OR BROWN CORN.

This corn has, in years past, been highly recommended in the Patent Office Reports. I procured some seed of it, three or four years ago. Hardly half of the seed was brown, the rest yellow. I have raised it ever since, but found that last year the corn was mostly yellow—but few brown ears. The brown ears I took pains to save for seed, and this year planted only the brown, but on harvesting it, as much as four-fifths of the ears are yellow. Is this the experience of others who have raised it?

Among the old sort of yellow corn that I raised several years ago, there would be a few ears entirely red. I have planted, in a piece by itself, this entirely red corn, and the produce was but a few red ears, the rest flesh color and yellow. The red, when planted in a field with the yellow, would not mix by the kernel—here and there a scattering corn, like other sorts; but the ears would be all yellow or all red.

## THE POTATO ROT.

This year the long red potato rotted badly in this vicinity. Of a piece which I dug the last of October, from which I had eighteen bushels, but two bushels and three pecks were sound. About the same time I dug a quantity of the Jackson Whites, and all of them were sound—not a rotten potato among them. As for the Davis Seedlings, but few were rotten. White Apple potatoes also some rotten. Black potatoes escaped the rot.

I am satisfied, and have been for a long time, that the rot is caused by a blast upon the vines which causes a stagnation of the circulating sap, and hence putrefaction. I have perceived that when the potato leaves turn suddenly black, the rot soon follows.

A neighbor of mine, in August last, found that his potato vines were suddenly turning black. He immediately pulled up the tops and dug his potatoes. He told me the other day that they were all sound—not a rotten one among them.

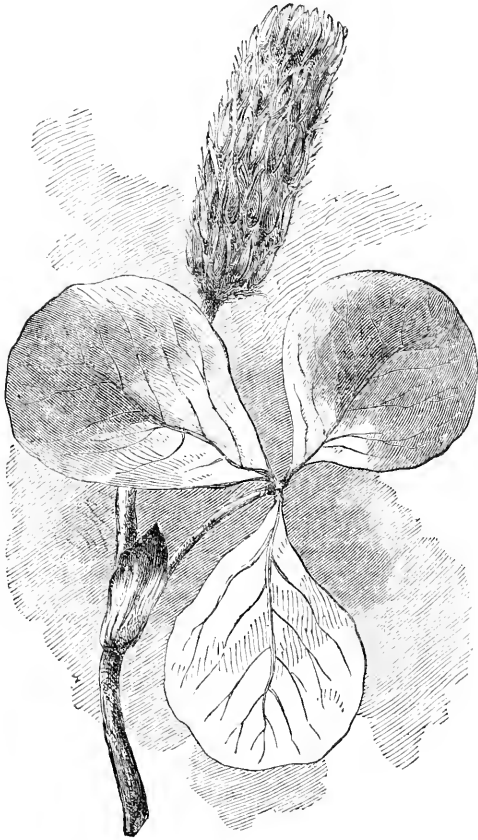
ISAAC STEARNS.

STOCK IN MAINE.—There are in the State of Maine 54,508 horses, 61,578 oxen, 132,645 cows, 374,095 sheep, and 45,923 swine.

## THE CRIMSON CLOVER.

TRIFOLIUM INCARNATUM.

Early in November, a gentleman residing in Canton kindly brought us a specimen of this beautiful and fragrant plant, the first we had ever seen, and we were so much pleased with it, as to ask for a perfect specimen, which we have had sketched and engraved, and present the reader to-day. The sketching is truthfully made, while the engraving is artistically done, and of course attractive. If we could add the color and fragrance of the flower it would be complete.



In presenting some perfect specimens of the plant, the gentleman who called our attention to it addressed to us the following note:—

MR. EDITOR:—I send herewith a couple of stalks of what I believe to be the "*Trifolium Incarnatum*," or Crimson Clover. One authority says: "The crimson clover is now grown for soiling and hay, and is a beautiful Italian plant, sometimes cultivated as a border flower. Much attention is given to its cultivation at present in Scotland. Fulton's experiments in growing crimson clover attracted special attention from the members of the Highland Agricultural Society. A large crop was grown from seed sown by Mr. Fulton on land from which a crop of early potatoes had just been taken. Three months after

it was sown, on Oct. 17, the yield was  $2\frac{1}{2}$  tons per imperial acre. He arrived at the following conclusion:

It is highly valuable as a secondary crop after early potatoes. It is an excellent intermediate crop to precede turnips.

It will withstand severe weather if well established before frost.

It produces an excellent crop of forage much relished by all the live stock of the farm.

Coming early to the scythe as a summer crop, 10 or 12 weeks after sowing, it may be produced very early in the season if wanted for stock."

The accompanying specimens were found near my house, in South Canton, where the seed was probably first sown by a former occupant as a garden flower. It grows quite luxuriantly, and at this late season, Nov. 2nd, while all other clover in the same field is withered, this is in full bloom, presenting, with its Crimson flowers, a beautiful appearance.

Yours, truly,

J. MASON EVERETT.

Boston, Nov. 2, 1860.

We learn from a gentleman in the town of Concord, that a paper of the seed of this plant was sent him from the Patent Office, several years since, which he sowed on the edge of a corn-field. It grew luxuriantly, and while the corn was being harvested several horses and colts found their way to it, and were found quite reluctant to leave it. The gentleman gathered a large basket of the plants in the hope of saving the seeds, but they proved not to be sufficiently matured. The horses and colts were so attracted by it that they leaped the fences and fed it so closely that none of it appeared again.

ENGLISH FRUIT.—I attended one of the largest fruit exhibitions in the country at the Crystal Palace in London. The apples were not worth looking at. Pears about middling. Plums and nectarines very fine. Hot-house grapes were remarkably good, and a few fair looking peaches grown under glass, also some things they call melons, which would do very well to feed the pigs with in America. The fruits in England, this year, are not high-flavored, but poor and insipid. The sun does not shine hot enough there to grow good-flavored fruit, but they are not troubled with worms in the fruit, as we are.—D. C. RICHMOND, in *Ohio Cultivator*.

HOW TO MAKE A CEMENT FOR STOVES.—Take fine salt one part, and two parts of fresh hard wood ashes, mix well together, then take cold water, and mix into a mortar. Apply to the crack either warm or cold, and you will find a cement which will answer all common purposes, and found to be very useful where the stove-pipe joints are not as tight as is desirable.

STILL ANOTHER.—Take iron filings, and mix to about the consistency of putty for glazing, with white lead and linseed oil. Fill in the joints as securely as possible, while the stove is cold, and let it stand a day or two before using.—*Rural New-Yorker*.

## A GOOD SOIL.

So much is said and thought of the superior fertility of the Western prairies, that probably but few of the farmers of New England, in counting up the mercies and blessings for which they ought to offer up special "thanksgiving and praise," on the occasion of the late observance of the Puritan festival, enumerated that of a good soil. It is, however classed, by the editors of the *Homestead*, with the following six special reasons why New England farmers should be thankful, viz.:—A Home in the Country—A Good Soil—A Country well Wooded and Watered—Fine Scenery—A Healthful Climate—Good Markets—The Blessings of Education, of Society, and of Religion—and upon each of which they discourse in the number of that paper, dated November 24, 1859—the Thanksgiving Day of twenty-two States and one Territory. We copy their remarks on this topic, in the conviction that a mere *habit* of speaking of the sterility of New England—of its rock-bound coast and granite hills—not by farmers only, but by our orators and writers, has done and is still doing our soil great injustice; and that multitudes leave our hills and valleys, to learn, by dear-bought experience, elsewhere, how little they have gained by emigration, so far as respects soil alone.

## A GOOD SOIL.

It may seem invidious to the dweller in the Western valleys, that we should speak of a good soil as one of the advantages of the sea-board States. Yet if we go back two centuries ago, when these States were mainly a wilderness, we shall find the settlers very much in raptures with the vegetable productions of these worn-out lands. Whether or not New England ever had so rich a soil as Ohio or Kentucky, is not now very easily determined, for we have no reliable statistics of the productions of our farms in colonial days.

It is a good soil, even now, after two centuries of persistent abuse, and abundantly rewards capital, labor and skill, wherever they are applied. We have very little, originally poor, arid land, and very little land now worn-out that will not pay well for reclaiming. The average product of corn to the acre in Connecticut is said to be larger than that of any State in the Union—a fact quite as complimentary to our soil as to our cultivation. Eighty to one hundred bushels are quite common among cultivators who use manure liberally, and with the skill and capital that are attainable in this occupation, we may make seventy bushels of corn to the acre, the average for the State.

We have within our own borders, if rightly distributed, the means of making our lands as rich as they need be. We have clay beds enough to make tile to underdrain every acre in the State that needs drainage, and muck enough to make our uplands as rich as a garden. The most of our farms have muck deposits within their own enclosures. The soil itself in most parts of the State, as the growth of forest trees bear witness,

abounds in elements of fertility, and only needs skillful working to give an ample reward to the labors of the husbandman. It is also

## A COUNTRY WELL WOODED AND WATERED.

Looking out upon the landscape from almost any of our hill tops, a large part seems still to be covered with forest. We are inclined to think that there is more woodland in the State now than fifty years ago. Since the introduction of coal, wood for fuel is cheaper in many of our cities and villages by twenty-five per cent. Almost every farm has a liberal supply of fuel and timber, and with good husbandry these may be perpetuated. These woodlands afford an important shelter to the cultivated fields; and it is doubtful if their extent can ever be much curtailed without injury to our agricultural interests.

We have, too, in all parts of New England, clear running streams and springs of water; water that it is a joy to look at as it leaps and foams and sparkles in the rivulets and brooks, or as it whirls and roars in the broader, deeper current of the river. One needs to see the turbid brooks of the Western valleys, and to taste the waters of their stagnant cisterns and wells, to appreciate that stereotyped item in the advertisement of a New England farm—"well watered." On the prairies you may go miles without beholding a water course of any kind, and hundreds of miles with no other sight than muddy water. Here springs gush up on all our granite hill-sides, and almost every enclosure of a few acres has its spring or separating rill, to allay the thirst of man and beast. The time is not distant when these idle brooks will be turned over the adjacent fields to irrigate them in drouth, and to add largely to their productiveness.

## FINE SCENERY.

This of course is a matter of small importance to those who only value the soil for the crops that will bring silver and gold. But the number is increasing every year who have a higher standard of value, and appreciate a region as it ministers to the aesthetic wants of man. New England cannot boast of the sublime scenery of the Alps or of the Andes, but no country can surpass her charming hills and valleys, her beautiful lakes and rivers. One hardly needs to go abroad in pursuit of the picturesque, the wild, or the grand in nature. The mountains of Vermont and New Hampshire, and the hills of Berkshire and Litchfield draw their annual crowds of summer tourists, in pursuit of health and happiness. The valleys of the Connecticut, Thames and Housatonic, abound in charming landscapes, that, however unappreciated in youth, are certain to be cherished by the emigrant to the prairies and valleys of the West,—pictures of loveliness forever.

## A HEALTHFUL CLIMATE.

We have a great advantage in this respect over the newer States of the South and West. There, diseases of miasmatic origin, chills and fever, are the lot of all, until they become acclimated, and with many, this period of trial never expires until they drop into the grave. Here, multitudes have almost uniform health, and many pass through life with no serious illness. In a parish in this State, one-third of the people born attain the age of seventy years, and this perhaps is not an over



estimate for the whole commonwealth. Certainly our climate is salubrious, and the man of good constitution and correct habits may cherish the reasonable expectation of good health and a green old age.

#### GOOD MARKETS

are another of our home blessings not to be overlooked in our view of the year. This would compensate for a much poorer soil than we have. The New England farmer has, within an hour's ride of his home, a hungry market for every product of his farm. There is little danger that anything will spoil upon his hands if he have enterprise enough to harness a horse, or yoke up his cattle. He is in the midst of a trading people, and can often sell everything that he has to spare at his own door. His hay and grain of course he will not think of selling, as they yield the largest profit when consumed upon the farm. But beef and pork, poultry and eggs, lambs, calves and sheep, cows, oxen and horses are always in demand, and there is no prospect of an over production while our commerce and manufactures continue to flourish.

In many parts of the great West there is indeed good soil and bountiful harvests, but it costs so much to send the products to market that the farmer has little profit of his labor. It avails little to have a fertile soil where wheat is worth but fifty cents a bushel, and corn but half that price; where the only sale of potatoes is at the starch factory at a shilling a bushel; where beef is three cents a pound and pork but four. These are physical advantages readily appreciated by all.

#### THE BLESSINGS OF EDUCATION, OF SOCIETY AND RELIGION,

are not less important, if less prized by the cultivators of the soil. The school-house and church are familiar landmarks in New England, conveniently situated to all. The academy, the seminary, and the college are within reach of every youth who hungers and thirsts after knowledge. These institutions have moulded our society, and made the mass of the people more generally intelligent and cultivated than can be found in any other part of the land.

One needs to travel in the sunny South, or over the prairies of the West, and mingle with a population that have grown up without free schools to appreciate present blessings. We who abide in New England, have always the privileges and enjoyments of good society within our reach. Neighborhoods exclusively bad, the resort of the vicious and idle, are almost unknown among us. Enterprise, intelligence, thrift, happiness and piety, are the prevailing characteristics of every community. For these things, farms a little richer or a little broader are no compensation. For these blessings let us give thanks to the Author of all good, as we come once more to the festival day of New England.

**APPARATUS FOR SALTING SHEEP.**—A correspondent of the *Boston Cultivator* writes: Last year I carried a large hogshead, for which I paid 38 cts., into the field and laid it upon the ground making it fast—one head having been previously taken out. I was careful to smooth off all protruding nails or rough substances liable to pull

the wool. Then upon the inside of the other head I nailed a seven by nine box to contain the salt, and the work was completed—the whole costing in money and labor, about 50 cts., and so far as necessity is concerned, it answered a very good purpose.

#### AMMONIA---CHARCOAL---GYPSUM.

Ammonia is contained in snow, dew and rain-water, especially in the last when falling in the vicinity of cities. It is a principle highly advantageous and even indispensable to vegetable development, and is lost by evaporation unless absorbed and fixed by some substance capable of attracting and fixing it. That ammonia actually exists in rain-water as it falls from the clouds, in no inconsiderable quantities, is demonstrated by chemical experiments of a familiar and simple character. If a few gallons of water be carefully distilled, and the first few pounds distilled be mixed with a little muriatic acid, a very distinct crystallization of muriate of ammonia, or sal ammonia may be obtained, which crystals have an opaque or brownish color. If a small amount of sulphuric or muriatic acid be mixed with a quantity of rain water, and the mixture evaporated to dryness by boiling, the ammonia will remain as a residue, and may be detected by the addition of a small quantity of powdered lime, which, combining readily with the acid, sets the ammonia free, in which state it is immediately recognized by its pungent smell.

As a "fixer" of ammonia, common charcoal is probably one of the most economical and efficient articles known, as it possesses the power of absorbing ninety times its weight of ammoniacal gas, which it retains until it is freed, or worked into the soil by rains, where, no doubt, by the voltaic action of the spongioles of plants, it is conveyed into the vegetable system and circulation, and constitutes the principal source of nitrogen, which is recognized as so indispensable to the health of plants. Gypsum, or common plaster of Paris, as it is more popularly called, is also a good "fixer," and possesses a high value as an application on most soils. This is especially the case on those soils that are dressed annually with manures, which, in the process of decomposition, evolve large quantities of ammonia, which plaster serves like charcoal to fix and retain for the benefit of the growing crop.

As a top-dressing for grass lands, gypsum possesses considerable value, operating, as in the case of crude manures, to catch and save whatever fertilizing properties are in the rain, dews or atmospheric vapor. Few substances produce more obvious effects, especially if the soil to which it is applied is of an argillaceous or clayey constitution.

A late writer says, "In itself, simply considered,

we are not, perhaps, warranted in ranking charcoal as a manure, as it is a substance nearly or quite indestructible; yet it possesses the capacity of exercising the functions of such, and may be considered as an efficient collector of the food of vegetables in most of their modifications, during the entire period of their growth. The same may be said of gypsum or plaster of Paris. Of this article, there are in every 100 pounds, 46 pounds of sulphuric acid, or oil of vitriol; 33 pounds of lime, and 21 pounds of water. The first constituent, or sulphuric acid, manifests a strong affinity for alkalies. If we mix gypsum with urine that has become putrid, or with manures of any kind, in a state of fermentation, the ammonia, which under such circumstances is in a state of rapid evolution, combines with the acid of the gypsum, and forms the compound known as sulphate of ammonia. In this state it is no longer liable to volatilization, and can no more be dissipated or 'fly off,' than granite or common salt; it is, however, a soluble compound, and will hence sink into the soil with the first rain.

"These facts, relative to the nature of the above substances, explain the utility of spreading gypsum, charcoal, and other similar substances, over the floors of our barns, stables and other out-buildings, as well as upon the surface of our unprotected manure heaps, and, indeed, in every situation where this valuable principle is engendered."

Formerly, the opinion was almost universal, that gypsum operated merely as a *stimulant*, but in his recent agricultural work, Professor Liebig has presented an elegant solution of its action, and one which, we have no doubt, will be found perfectly correct. It will appear, according to his views, that the carbonate of ammonia known to be present in rain-water, and which is in itself an energetic agent in vegetable growth, is attracted and decomposed by gypsum and soluble sulphate of ammonia and carbonate of lime formed. As this salt of ammonia possesses no volatility, it is, of course, retained in the soil, and successfully economized for the use of the growing plants.

Both the above-named salts, however, are found to have a very advantageous influence upon the *humus* of the soil, and tend to advance its preparation for the crops that are upon it.

In all cases where putrescent manures are applied to land, the loss occasioned by the escape of ammonia, unless some substance is applied with it capable of attracting and fixing it, is supposed to be considerable—though some persons regard the loss as trifling. We are clearly of the opinion, however, that where manure is thrown into large heaps and permitted so to remain till it ferments, that it is often greatly reduced in val-

ue in consequence of the ammoniacal and other gaseous products being set free, and allowed to pass into the atmosphere during the process of fermentation, or "heating," as it is more commonly termed by farmers.

Dr. Dana makes some strong remarks upon this point in his "Muck Manual," to which we refer the reader for many facts of importance in the collection and application of manures.

#### GOLDEN DAYS OF NOVEMBER.

The autumn chill creeps over our years;  
The autumn frosts on our heads are falling;  
And beyond the winter of death and tears  
We can hear, sometimes, the snow-birds calling.  
White hairs upon the wrinkled brow  
A truce to time will soon be waving,  
While the scanty fruit on branch and bough,  
But little fulfils our youth's large craving.  
Thank God for a late autumnal smile  
That kindles to flame the dying ember!  
Sit down, old heart, and be pleased awhile  
In these golden days of November.

Who says the best of our lives are past?  
Who says that no more the angels love us—  
While the heart of nature seems so vast,  
And her kiss of peace is bending above us?  
There's a soft warm mist on field and hill,  
Where the Indian of this second summer  
His spirit game is chasing still,  
As he did ere the reign of the white new-comer.  
Away from the happy hunting grounds  
Whose tribes his dusky legions number—  
He comes, they say, when the echo sounds,  
In these golden days of November.

Once more throw open the window-pane.  
Ere to winter's blast we bar and close it;  
Unfasten the heart for an hour again,  
While the golden glory overflows it.  
Sit down in memory by the streams  
That dabbled our feet in the days so early—  
When the budding germs of crimes and schemes  
Crept under the locks so brown and curly.  
Crawl out in the sunshine, crippled age,  
Though a brighter sun you may well remember:  
O, happy for you if your closing page  
Be these golden days of November.

Is it Summer? No! the branches are bare,  
And we listen in vain for the song bird's singing;  
A calm—but a treacherous calm is in the air,  
And forth will the winds like hounds be springing.  
Creep in, old age, to your hearth again!  
Shut down the sash and bar the shutter!  
One autumn comes, but two will remain,  
If we trust what childhood's heart may utter!  
Let the night come down with the chilly haze—  
Let the storm beat out the falling ember:  
We have looked our last on the treacherous days,  
The golden days of November. *Henry Morford.*

**THE RED SPIDER.**—The Michigan *Farmer* publishes the following recipe, discovered by Dr. A. Bush, of Detroit; twelve ounces common soft soap; three ounces (by measure) turpentine or camphine, mix well together. This is for six gallons of water, which must be stirred well together, and applied with a common garden syringe, or the same proportion for any quantity.

*For the New England Farmer.*

### TUBEROUS ROOTS.

OR THE MOST IMPORTANT TUBEROUS ROOTS USED BY DIFFERENT PEOPLE FOR FOOD.

BY WILSON FLAGG.

I have carefully prepared from different sources the following abstract giving an account of some important facts concerning the use and culture of different edible roots. I will begin with the most important of all—

#### THE POTATO,

(*Solanum Tuberosum*.)

which originated, without doubt, in America. Prosperity and civilization have been developed in the Old World without acquaintance with the potato; but the universal diffusion of this plant among the inhabitants of Europe has produced a complete revolution in their system of agriculture, and has been the most important means of preventing those famines which formerly prevailed, before commerce had introduced a greater variety of resources. The exigencies of the poor are met by the culture of the potato, and since its introduction, no failure of this crop has occurred simultaneously with the failure of the corn crop. The root is an offset against the cereals, and Divine Providence, for the benefit of man, has provided that the conditions of climate which cause the failure of the one shall be favorable to the other.

Still the potato crop is so important in many countries in Europe, that great misery falls upon common people when it fails. This was felt most painfully some years ago, when the potato disease first appeared, when it was so general as to destroy almost the whole crop in Ireland, and so sudden as to find the inhabitants wholly unprepared for the emergency. In Ireland, potatoes and oatmeal bread are the common food, and when it fails thousands must perish; yet famines are by no means so frequent as they were before the cultivation of the potato. It is this root, which the earth produces so abundantly, that serves more than any other cause to keep down the prices of other products, and place them within the reach of the poor.

This plant is indigenous in the cold regions of the South American Cordilleras; and in the course of about two centuries it has spread in so rapid a manner, that it has become the general food of whole nations in different parts of the globe. Over all Europe, in Lapland, Iceland and the Faroe Isles, to 71° north latitude the potato is cultivated; also in the lower plateaus of India, in China, Japan, the South Sea Islands, New Holland and New Zealand. It is remarkable, however, that its introduction has usually been opposed at first by the inhabitants. Frederic the Great was obliged to compel the Pomeranians to accept this boon of Providence.

Nothing is certainly known concerning the extent of the native country of the potato; but it is certain that it was cultivated in the colder regions of the South American Cordilleras, before the discovery of America; it is equally certain that it was unknown to the Mexicans. Meyen, a German botanist, found it wild in two different places in the Cordilleras, but he does not believe it has ever been found wild in Mexico.

The colonists who arrived in Virginia in 1584 found the potato there; and ships which returned from the Bay of Albemarle, in 1586, brought the first tubers to Ireland; therefore, the statement that Sir Francis Drake introduced this root into Europe seems to be unfounded. When Drake, after one of his remarkable voyages, was honored by a visit to his ship from Queen Elizabeth, all kinds of fruit and food which that voyager had brought home with him were put upon the table. In the account of that feast all the dishes are named, but the potato is not mentioned. Thus the name of the man who brought this blessing to Europe has perished.

#### THE CAMOTA, OR SWEET POTATO.

(*Convolvulus Batatas*.)

The sweet potato is almost universally called *Camota* in the Spanish colonies. It is indigenous, like the true potato, in the New World, and probably also in the South Sea Islands. It was widely cultivated in the Sandwich Islands, before the arrival of the Europeans. It has not spread so widely over the earth as the common potato, because it requires for its successful culture a very high temperature. It is cultivated in all parts of the torrid zone, and beyond the tropics wherever the heat of summer is sufficiently great. In the Middle States of North America it succeeds well, but the roots are of a poorer quality than those which are raised further South.

The tubers are mealy and of an agreeable flavor and are preferred while they last, to the common potato, but their sweetish taste causes them sooner to cloy the appetite, and the preference is finally given to the latter, which is undoubtedly more wholesome as constant food. Meyen found excellent camotas in the valley of Arequipas, almost at the height of 8000 feet.

Two varieties of the camota are cultivated, the one with a yellow, the other with a white tuber. There is also a distinct species cultivated in the West Indies, the botanical name of which is *Ipomæa tuberosa*—each species being allied to the garden annual known as the Morning Glory.

*Cambridge, Nov. 24, 1860.*

*For the New England Farmer.*

#### HONEY BLADE, HUNGARIAN GRASS.

In a communication of mine in the *Weekly Farmer* of June 23d, which also appeared in the August number of the *Monthly*, page 355, under the above heading, I stated that I intended to pick out a quantity of black seed of the above grass to sow in drills by itself to see if the crop would produce wholly black seed. I did so, and would remark that the seed that I bought at the seed store of Nourse & Co., in Boston, contained but only about one-sixth black seed; of the other five-sixths the seed was yellow.

I took pains to pick out the black seed which I sowed in drills in my garden. It was sown the 16th of June. It began to head out on the 12th of August, and was harvested the last of September. It ought to have been harvested before, as the birds, particularly the yellow bird, had eaten up about one-quarter of the seed. On cleaning up the seed, after threshing, I found rather over half of the seed was black, the rest of a yellow.

lowish cast. I found that before threshing it, some of the heads contained almost all black seeds, but not quite, while a few heads contained mostly yellow seeds. None but black seeds were sown.

I think this Hungarian grass is a valuable accession to our list of grasses, and is a profitable crop. The seed yields plentifully. Some do not approve of sowing it for hay as it has to be sown every year. So does oats. When it is sown other grass may be sown with it, for a future crop, the same as with oats. One of my neighbors sowed this Hungarian grass the first of last June, and sowed also clover, herds grass, red-top and fine-top. (rather more sorts, I think, than necessary,) which appeared to take well, and looks now as if there will be a fine crop of hay on the piece next year. ISAAC STEARNS.

*Mansfield, Nov., 1860.*

### EXTRACTS AND REPLIES.

#### PRICES OF CATTLE IN BRIGHTON MARKET.

In a late number of the *Farmer*, you quote the price of working oxen in Cambridge market at \$80 to \$175 per yoke. We, farmers here in Vermont would like to know how large those oxen are? All drovers here have their girth chains, and most of the farmers have a chain to measure cattle. Working oxen here that will measure six feet six inches, well matched, good, handsome bodied cattle, and good workers, our drovers tell us \$75 or \$80 is a fair price for. A little explanation on working oxen will be thankfully received. A SUBSCRIBER.

*Post Mill, Vt., 1860.*

REMARKS.—The oxen quoted as bringing \$80 to \$175, include those of the poorest character, and also those of the best that are taken to market. The prices of oxen vary widely as well as those of horses, according to their appearance, one pair girthing the same as another bringing readily ten to twenty-five dollars more. It is not expected of the reporter to give the price of every pair of cattle sold; all he can do is to give the range of prices which they bring. Prices vary materially according to the weather, and several other circumstances, which are continually changing.

#### TO RELIEVE CHOKED CATTLE—MANURES.

FRIEND FARMER:—Having noticed several different modes of relieving choked cattle, all of which I think to be inferior to my method, I will endeavor to explain how I do it.

Put upon the creature's head a rope or head halter, and draw the rope over the girth of the barn or some object which will raise the animal's nose as high as can be done while standing upon its feet. Then let two men take a smooth lever or sled stake, and standing one on each side of the animal, press it hard against the throat and carry it gradually down as far as possible, and the obstruction will be carried down into the stomach, and the creature is relieved. This method I have never known to fail, and it being an external application, is perfectly safe to both man and beast.

If Mr. L. Gage wants good milk for himself and his family, let him feed his skimmed milk and all other slops to his pigs, and feed his cows with roots to increase the quantity of milk; for I am confident that any kind of horse slops injures the quality of the milk, if it does not injure the cow to which it is fed.

#### HOW TO MANAGE MANURES.

I wish to advance one idea on the saving of manure, which is simple and cheap.

It is not every farmer that has a good cellar under his barn, but every one should have a wheelbarrow upon which he can carry the manure from the stable

into the barn-yard, and beginning on one side of the yard, dump one load in a place till he has covered the whole surface, or as much thereof as he pleases, then go over with another course in the same way, and so on through the winter, and in the spring he will find the droppings of the cattle well mixed with their bedding and the litter of the yard, and no unsightly heap under his stable windows.

If he has sheds for his cattle or sheep under which he can deposit as above, so much the better.

*Orford, N. H., 1860.*

ARTEMAS.

REMARKS.—We shall be glad to hear from our correspondent again on any agricultural topics.

#### SQUASHES AND THRESHING MACHINES.

MR. EDITOR:—I would inquire through the columns of the *Farmer*, the correct way of telling the male squash from the female, of the Hubbard, Marrow and other squashes, also of pumpkins,—and the correct method of planting, how many of each kind in a hill.

I raise yearly from six to eight hundred bushels of grain of all kinds, which has to be threshed in my barn, either by hand, or by hiring a horse-power machine, which leaves everything upside down, and carries off some money and a large portion of my grain, which I don't like. Now I would like to be advised which to do, to go on as I have done, or purchase a one-horse threshing machine, and do my own threshing? I have horses, and keep a man the year round. Do you approve of the one-horse thresher, and what can I purchase one of the best kind for?

AN OLD SUBSCRIBER.

*Ellsworth, Me., Nov., 1860.*

REMARKS.—You would be able to do your own thrashing conveniently with a one-horse thresher, with a somewhat heavy horse, say one weighing eleven or twelve hundred pounds.

#### SUPERPHOSPHATE FOR APPLE TREES.

How much superphosphate of lime ought to be put around apple trees eight or ten years old? Which is the best, that or oyster shell lime, and how much of that? When is the best time to apply it, fall or spring? *Orange, Nov. 15, 1860.* S. M.

REMARKS.—If your trees are thirty by thirty feet apart, you will have forty eight of them on an acre; if you add four pounds to each tree, it will give one hundred and ninety-two pounds per acre, which we should think would be very well for the first application. A much larger quantity would do no harm. We have never used it for apple trees, and only give you an opinion above, not experimental knowledge. The superphosphate is undoubtedly worth more than the oyster shell lime. A peck of the latter spread under each tree could do no injury that we can conceive.

#### COW HOLDS UP HER MILK.

I wish to inquire through the columns of the *Farmer* if there is any remedy for cows holding up their milk, as I have a valuable heifer that is nearly dry from that cause.

C. P. BACHELDER.

*Franklin, N. H., Nov. 6, 1860.*

REMARKS.—Always treat the cow kindly, feeding and housing her well at all times, and just before sitting down to milk place before her a little sweet hay, a few carrots, or other roots, or a little meal and water, and she must be a very singular cow if she does not give down her milk as freely as you do the hay and roots. Try it.

#### EGYPTIAN CORN.

MR. VESPER T. HUBBARD, of South Strafford, Vt., gives us an experience with this corn similar to those we have already published. He thinks it would require two seasons to grow one small crop of it.

*For the New England Farmer.*

THOUGHTS SUGGESTED BY THE N. E. FARMER, NOV., 1860.

Page 491—*Corn and Cob Meal.*—I have some fears that this article, (which gives the substance of a communication in the *Ohio Cultivator*,) may mislead some of the readers thereof, and more especially those who accept almost every statement which they meet with in print, as trustworthy, neglecting to bring every such claimant upon their belief to the test of reason, common sense, and well-established facts and principles. My fears of such an unfortunate misleading of some are based on two features of this article, one of which is that it has much more of the appearance of having been written by one who wished to make out a plea in favor of a foregone conclusion, or of the utility of grinding cobs, than of having been written to give an unbiassed testimony as to the facts which had come under the observation of the writer.

Another of the features of this article which has led me to entertain such fears as I have expressed, is, that some of the reasons alleged in favor of the use of grinding cobs along with corn are mere opinions, unsusceptible of proof, or favorable results attributed to the use of the mixture of cob with corn meal, which that mixture, in the quantity used, could have very little to do with. For example, it is stated "that cob meal is the safest and cheapest feed that is raised in Ohio." Now its *superior* safety, or its being "the safest" of all feeds, is a claim which *cannot* be proved, and is, even at a first glance, highly improbable. Had the advocate for cob meal been able to restrain his great anxiety to make out a strong plea in favor of his client—viz.: cob meal—he would have seen that he was only injuring the cause he had undertaken to plead by a statement so wholly beyond the limits of credibility, and so entirely unsusceptible of proof, as that which he made when claiming a *superior* safety for cobs above all other feed. If he had contented himself with merely saying that notwithstanding the opinion of several, that cob meal was not a safe feed on account of the hard, flinty, sharp scales contained in cobs, he himself had never met with any case in which damage seemed to have been done thereby, then he would have been within the limits of reason. This is the *only* testimony or plea in favor of the safety of cobs which any judicious or modest man would venture to make. No man of *such* a character would expose himself to the suspicion of mental unsoundness, or of a blind and overweening anxiety to make a sophistical plea in favor of a weak cause or claim, as must be done when any man attempts to make people believe that cob meal is "the safest feed that is raised in Ohio."

No man of sound mind or good judgment, would even venture to assert *confidently*, as the correspondent of the *Ohio Cultivator* has done, that cob meal is perfectly safe—much less that it is the safest of all feeding-stuffs. He would know that such a statement *cannot* be proved, and could not be accepted, by *wise* men, merely on the authority of his saying so, or of any other man's saying so. All that any sensible man would feel authorized to say in reference to this matter would be no more than this—that nothing had come un-

der his observation, during his use of cob meal, which led him to suspect it as unsafe or productive of any internal injury or derangement in the animals using it. And even *this negative* testimony, a man who cared for his intellectual reputation would be rather reluctant to give, for he would know that any amount of such *negative* testimony would not avail to counterbalance even a single case of *positive* testimony going to prove that disease or death had really occurred from the use of cob meal; and *such positive* testimony he would know was on record, if a reader of agricultural papers.

But I must endeavor to be more brief in what remains to be said. Another of the reasons, alluded to in the foregoing paragraph, why we entertain fears of the reliability of what is said, by the correspondent of the *Ohio Cultivator*, in favor of the employment of cob meal, is this: he alleges that a large amount of the increase in the weight and value of the cattle fed on this meal is to be attributed to so *small* a quantity of it, as to be beyond the belief of any man of common discernment. It is said, for example, that "cattle that cost him \$18 per head in the fall, brought him \$45.69 after consuming only about twelve bushels, 70 pounds in the ear per bushel, ground and cooked." Now, even allowing what is claimed, that grinding and cooking doubles the value of the corn and cobs, can any sensible man believe that an increase in the weight and value of an animal which would make it worth nearly \$28 more than it cost, could be owing mainly to the use of 12 bushels of meal, even if the weight thereof were 70 pounds per bushel? Every man of any discernment must see that so *great* an increase in the weight and value of the animal could not be due mainly to the feeding of so *small* a quantity of food as is, rather ambiguously, designated as "12 bushels, 70 pounds in the ear per bushel, ground and cooked."

In conclusion, let it be said that those who undertake to defend or recommend the practice of grinding cobs with corn, and of using the mixture in feeding cattle or other stock, have a task before them which requires that they should prove, to the satisfaction of men of sense, the two following propositions:

1. That the use of corn and cob meal is perfectly safe, notwithstanding all the testimony on record to the contrary, and notwithstanding the improbability that scales of very great hardness and of knife-like sharpness can go through the stomach without doing any harm.

2. That it is not a waste to pay for grinding a substance of no more value than so much wheat straw.

MORE ANON.

FROGS.—Somebody who has watched the amphibious creatures, says in *Chamber's Journal* that male frogs make the most noise, being furnished for that purpose with a kind of bladder in the neck, or double action bag-pipe; but then the voices of the females are the hoarsest and most aggravating. When, however, intent upon doing the agreeable, they have another tone of voice—soft, sweet and plaintive, like a bell heard in the stillness of a summer evening; from which some naturalists have inferred that it is only the married couples, and old maids and bachelors, whose

voices are so harsh and grating, the courting and honey-moon tones being pitched in a different key. Although frogs have no tailors' or milliners' bills, they follow the fashions in having a new suit every week or fortnight during the summer, and in casting off the old skin as frequently. They are admired as food not only by Frenchmen and gourmands, but by snakes, eels, pike, trout, aquatic birds, hawks, owls, moles and weasels. Those most esteemed by epicures, frequent deep, clear pools, and are not easily caught by hand.

*For the New England Farmer.*

### PROFITS OF FARMING.

SIR:—The question, "Is Farming Profitable," I suppose has been satisfactorily determined, but nevertheless, I will add my testimony to that already given by abler pens. Last spring I obtained the use of a piece of land containing about 9000 square feet, which had never been plowed, and was covered with a strong growth of running blackberry vines and weeds. After it was plowed it was harrowed and manured in the drill with coarse horse dung; about the 1st of May it was planted with sweet corn and potatoes, reserving a small patch for tomatoes, &c., and notwithstanding I had to plant my corn over a second time, I have gathered this fall the following crops:

|  |                |
|--|----------------|
| 12 bushels potatoes, sold at 62c per bush..... | \$7.44         |
| Sweet corn, at an average of 13c per doz.....  | 8.00           |
| String beans.....                              | 1.00           |
| 5 cabbages, at 3c per head.....                | 1.50           |
| Tomatoes.....                                  | 3.00           |
| <b>Total.....</b>                              | <b>\$20.94</b> |

Besides other smaller products which help to prove that farming is profitable.

#### EXPENSES.

|  |                |
|--|----------------|
| Manure worth \$5, one-fourth used this year..... | \$1.55         |
| Seed, &c.....                                    | 2.00           |
| <b>Total.....</b>                                | <b>\$3.25</b>  |
| Value of crops.....                              | \$20.94        |
| Expenses.....                                    | 3.25           |
| <b>Profit.....</b>                               | <b>\$17.69</b> |

This is not large, but it is very well for this town. I am fully satisfied with it, and shall endeavor to go on a larger scale next year.

GEORGE E. MITCHELL.

*Somerville, Nov., 1860.*

#### TO WALK OR DRIVE IN A STRAIGHT LINE.—

The *Dairy Farmer* gives the following directions for "going straight," which, though familiar to most farmers, may not be to all:

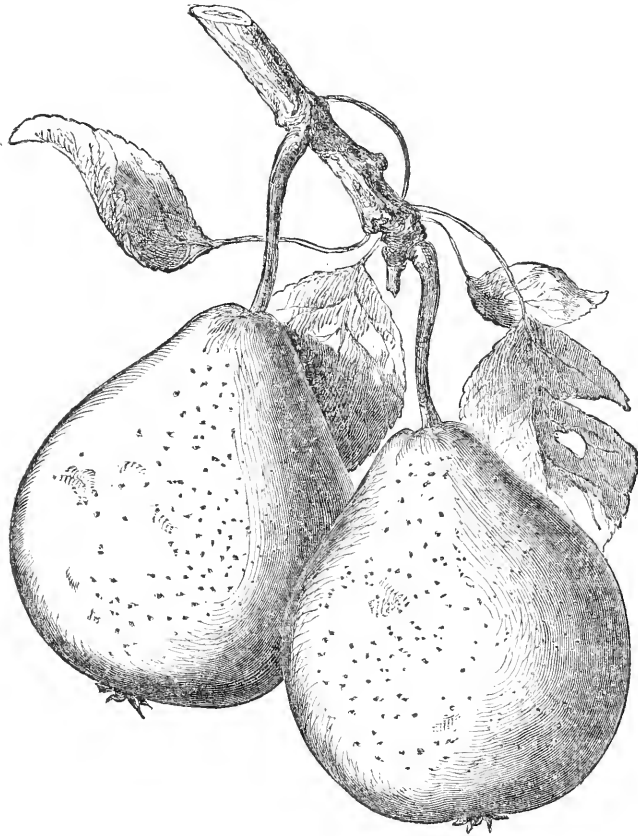
At the starting place, fix the eye in the direction of the stake, or other termination, and notice some object in the distance beyond, that is in range or line with the eye and stake. Go towards the stake, keeping the eye upon it, and the object beyond; and as long as the three are kept in range, the line travelled over will be straight, but as soon as the three are out of range, they indicate that the person moving has deviated from the straight line, and he may get back into line at once by bringing himself in range with the stake and distant object.

#### PACKING APPLES IN LEAVES.

A few years ago, Mr. J. W. Boynton, of East Hartford, while gathering up leaves under an apple tree, in the spring, observed beneath them a few fresh, unfrozen apples. It suggested at once that dry leaves would answer well as packing material for fruit, and the next fall and every season since he has used them for this purpose. We saw a few days ago some specimens thus preserved, seemingly as fresh and as piquant in flavor as when first gathered; yet he assured us they were varieties that would have decayed months ago if unprotected. His plan is to pick the apples carefully at the proper time, not to pack them until the forest leaves are perfectly dry and the weather quite cool. Then the apples and leaves are placed in alternate layers, and the last layer of leaves crowded in as close as possible by placing any convenient weight on the cover of the barrel. The leaves are of such elasticity that the whole may be compressed so tightly as to prevent all shucking, &c., and yet not bruise the apples in the slightest degree. In this latitude Mr. Boynton has never found it necessary to keep these barrels of fruit in any place warmer than an open shed. It would be advisable of course, everywhere, to keep them in as cool a place as possible. In the spring they are to be removed to a cool, airy cellar, or to an apartment especially for fruit, in connection with the ice-houses.—*Homestead.*

THREE VERMONT FARMERS.—One man in Richford has 900 acres of improved land, and besides summering and wintering 19 horses, 85 cows, 120 other cattle, and 55 sheep, bought in the spring of 1859, 120 head of cattle, pastured them through the season, sold them in the fall, and received \$500 net for pasturing. He also had one and a half acres planted with French or Osier willow,—cut from the same six tons of green, equal to two tons peeled and dried. Cost of peeling and drying 2 cents per pound—worth in market from 5 to 2½ cents per pound. Another man in Sheldon has 300 acres of improved land, and besides wintering 10 horses, 21 cows, 2 oxen, 32 other cattle and 225 sheep, sold last season \$650 value of horses, \$600 value of cattle, \$400 value of wool, \$75 value of sheep, and \$50 value of hay and other produce. A man in Enosburgh has 330 acres of improved land, and besides wintering \$1,090 value of live stock, sold \$2,500 value market cattle, raised upon his farm.—*Springfield Rep.*

SKIMMING MILK.—A country woman says: The wise man, in enumerating the times and seasons, made no mention of a time to skim milk; yet, nevertheless, there is a time,—a right time, too,—and that is just as the milk begins to sour in the bottom of the pans. Then the cream is all at the surface, and should at once be removed— with as little of the milk as possible. If allowed to remain until the acid reaches the cream it impairs it in quality. The housewife or dairymaid, who thinks to obtain a greater quantity by allowing the milk to stand beyond that time, labors under a most egregious mistake. Any one who doubts this, has only to try it to prove the truth of this assertion. Milk should be looked to at least three times a day.—*Rural American.*



THE DEARBORN SEEDLING PEAR.

On a comparison of our cut above, with illustrations of the same fruit in Downing, Thomas and Fields' works on fruits, we find a considerable difference in form. In each of these works, the Dearborn's Seedling is represented as *nearly round*, while our cut shows the fruit to be pyriform in shape, or rather inclining to a depressed pyriform shape.

The pears from which our engraving was made were taken from a tree standing in Mr. HENRY VANDINE'S grounds at Cambridge, by one of our firm, and were considered a fair average in size and form of those on a tree in full bearing. They were halved by the artist, and the outlines of the fruit accurately traced, and are as nearly true to their originals as a skilful eye and practiced hand could make them.

This pear is an admirable early variety, of first quality, raised in 1818, by the Hon. H. A. S. Dearborn, of Boston. It bears abundant crops in any fair soil, succeeding the Bloodgood, and preceding the Bartlett. Young shoots, long, dark

brown. Fruit scarcely of medium size. Skin very smooth, clear light yellow, with a few minute dots. Stalk slender, rather more than an inch long, set with very little depression. Calyx with delicate, spreading segments, set in a very shallow basin. Flesh white, very juicy and melting, sweet and sprightly in flavor. Ripens about the middle of August.

CANADA CLIMATE. — The Montreal *Farmer's Journal*, in commenting on the practice, common in other sections as well as in Canada, of ascribing to unfavorable climate many failures which result from mismanagement or no management at all, says :

But let them talk of the climate of Canada as they please, it is more regular and steady than the climate of Britain. It is not so variable, though the winters are more severe and protracted, and the summers warmer; what we want is unstinted application of capital. With British appliances, we should hear less abuse of our Canadian climate.

*For the New England Farmer.*

### MALE AND FEMALE SQUASHES, AND OTHER MATTERS.

"An old subscriber," writing in the last number of the *Farmer*, inquires relative to "the correct way of telling the male squash from the female, of the Hubbard, Marrow and other squashes, and also of pumpkins."

A squash or pumpkin is fruit, (of the vine, if you please,) and no fruit has gender, hence there can be no such thing as a male or female squash. Passing from the fruit to the seed that it usually envelopes, serving first as a nourisher to the same, next as protector, and finally, as food, as the germ within is unrolled and the younger plant appears, we likewise find no gender. Gender is not found in the fruit, is not found in the seed of any plant, but exists only in the floral development; in other words, the organs of gender are found only in the flower. It is true, that of some trees and vines, certain seed give trees or vines that will yield only male flowers, (the pomegranate is an example among trees, and sometimes the grape vine among vines,) and for theory's sake such seed may be termed male seed, yet practically the distinction is without a difference, or vegetable anatomy has not explored to the depths at which so nice a structural distinction lies.

Among all the trees of the orchard, and in most of the products of the farm and garden, we find the male and female organs present in the same flower, the fine threads in the middle of flowers being the organs, the one or more in the centre being the pistil or female, and those surrounding the stamens, or male organs; but the squash family is an exception to this general rule; hence we find the male and female organs in different flowers, though on the same vine. The flower containing the stamen appears first, growing on very long stems and are generally called false blossoms. These can readily be determined by a single undivided shoot in the centre, sometimes called by children the "candle." Such blossoms can never produce squashes, and yet without the aid of these blossoms no squashes can be produced, as from them come the pollen by which the female or staminate blossoms are fertilized. The female blossoms will be readily recognized by having the centre piece divided in six or eight parts, also by the embryo squash beneath it. This much on "male and female squashes."

Many questions have occurred to me while cultivating squashes, relative to their laws of development, of all of which I may affirm that I have found more pleasure in the endeavor to determine them by careful experiment than in drawing on the experience of others; but as to enjoy such pleasure alone is rather selfish, I propose two or three for intelligent, careful experimenters, premising that, as experiments, even after our greatest care, may still, in their results, look in the wrong direction, by reason of certain conditions that are not fully considered, or, it may be, wholly overlooked, therefore we draw our conclusions only after three or more repetitions of the same experiment, a consideration which would throw out many a crude, deceptive result, which, when brought before the people, only confuse or teach error.

*Experiment No. 1.*—We are sometimes told

that if the end of a squash vine is nipped off near a young squash, the growth of the vine being checked, its vigor will go into the fruit. It will be found that, sometimes, one succeeds in greatly increasing the fruit by this process, at other times he meets with a total failure. Now it would be an advantage to know the conditions of success. It may depend on the degree of vigor in the vine, or what is more probable, on the size the young squash has attained, it being stricken with paralysis if very small.

*Question No. 2.*—Many farmers hold that old seed gives more squash and less vine than newer seed. Is this so, and if so, what is the greatest advantage obtained?

*Question No. 3.*—There is a theory in the community that seed from the stem end of squashes will yield a different product in form or number from those taken from the other end of the squash, the calyx end. What is the difference, if any?

*Question No. 4.*—If the seed are equally mature or of equal size, will the largest seed in any particular squash produce a better crop than the smallest?

These questions might be indefinitely extended. Some may say that to be so minute is to be foolish, but I believe that the high standard of agriculture of our era requires just such minuteness, just such thoroughness.

JAMES J. H. GREGORY.

*Marblehead, Mass., Dec., 1860.*

**PLOWING BY STEAM.**—At the St. Louis Fair a machine, invented and manufactured in the State, was put into operation and demonstrated that plowing can be done by steam. The *Valley Farmer* describes it as—

"A large Locomotive or Steam Wagon, having four large broad wheels, propelled by a small steam engine located on the wagon, and to this wagon a gang of six plows was attached. The wagon moved on, drawing after it its train of plows, in ground baked nearly as hard as brick by the long severe drought. It would have been impossible to have plowed the ground by any ordinary team. One of the plows was broken by the hardness of the ground, but the other five were forced through the earth, doing the work as well as could be expected under the circumstances. There was no breaking of the machinery, there was no failure in the work—the plowing was done successfully at different trials. A ditching machine was attached to the steam wagon—the plows having been taken off—and excavating was done more rapidly than we ever saw it done before."

**PANS OF MILK.**—The Connecticut *Homestead* republishes from an old Genesee *Farmer* an account of three carefully conducted experiments for the purpose of determining whether more butter is obtained from a given quantity of milk when set in pans partly filled than when full. Contrary to the expectations of the experimenter, from the same quantity of milk in the full pans, some three or four per cent. more butter was obtained than when set in pans half full.



*For the New England Farmer.*

### HOW TO SALT AND PRESERVE BEEF AND HAM.

Will you, or some of your correspondents, give a receipt for curing beef so that it will be as sweet next summer as that put up by the Philadelphia packers?  
N. S. C.

*West Tisbury, Nov., 1860.*

*Another.*—I would like to know if you, or any of your subscribers, can give me directions for salting beef, to have it keep through the summer. By so doing you would much oblige

H. G. GOODRICH.

*St. Albans, Vt., Nov., 1860.*

REMARKS.—We have selected the following and submitted them to a notable housewife, who pronounces them good.

#### SALTING BEEF FOR SUMMER USE.

16 qts. of salt, and  
4 oz. of saltpetre, for each  
100 lbs beef.

Rub the pieces all over with salt, and pack it in edgewise, and after a layer is completed, take an axe or maul and pound down solid. Then sprinkle on a little saltpetre and fill up all interstices with salt, and so on until the cask is full. Those who do not like saltpetre may omit it without injury to the meat.

Mr. A. WANZER, who communicated this recipe to the *Albany Cultivator*, says he has salted his beef in this way for fifteen years, that it needs no soaking before boiling, and will be tender and sweet the year round. By this way of salting it makes its own brine, and never wants repacking, nor the brine scalding. If the brine should not cover it in the spring, sufficient may be added for that purpose.

Take a barrel and turn it up over an old pan or kettle, and burn cobs or hard wood for seven or eight days, keeping water on the head of the barrel to prevent its drying.

Make a pickle as follows:—

6 oz. of saltpetre,  
2 qts. of molasses,  
3 gallons of water, for each  
100 lbs. of ham.

Boil and skim the pickle thus prepared. Pack the ham in the barrels, and when the pickle is cold, pour it on to the meat, and in four weeks it will be excellent, very tender and well smoked.

*Another.*—Make a pickle as follows:—

5 pts. of molasses,  
5 oz. of saltpetre, and  
3 gallons of water, for each  
100 lbs. of beef or ham.

Boil these over a gentle fire, and skim off the scum as it rises. Pack hams with the shank end downward, and when the pickle is cool pour it over them or the beef. They will require to lay

in the pickle from two to six weeks, according to the size of the pieces and the state of the weather—as they require to lay in the pickle longer if the weather is cold.

#### THE PUTRIDITY OF WELLS.

An article the *Homestead* of a week or two since, in regard to the restoration of Mr. Snow's well, which had become putrid, recalls to mind an experience of our own in curing a similar trouble.

We had a well of beautiful water, soft and cool, which all at once began to taste and smell as if the dead body of some animal were undergoing the decaying process in it. We gave it a thorough examination by the aid of the looking-glass, but could discover nothing. We descended to the water, but found no animal or vegetable matter in a putrid condition, and we were forced to the conclusion that the water was of itself putrid. Having reached this conclusion, we set our wits at work to devise a remedy; we remembered that only still water became thus affected, and that running water never became so. We thought the reason of the continued purity of the latter must be because of its continued agitation bringing all its particles continually in contact with the atmospheric air when it absorbed the oxygen to the necessary degree for reinvigoration of any property lost in sustaining its teeming, infinitesimal life. Upon this thought we based our action and remedy. We hired a man to work thoroughly the chain pump in the well, working with all his might for two hours, during which time he scarcely diminished the depth of the water. It was not longer than twenty-four hours before the water was as sweet and good as ever. We believe that it was the thorough agitation of the water by pumping, extending to the very bottom of the well, that effected the cure.

Again, we now have a cistern filled with rain-water from the roof, which passes through a filter in reaching the cistern. A week ago the water in the cistern became putrid, tasting and smelling, we can't tell how bad. We remembered the experiment with the well, and the supposed reason of its cure; so we procured a long pole, and thoroughly stirred it up, agitating the water as much as possible, perhaps working at the job fifteen minutes. In twenty-four hours the water was sweet and wholesome again.

These facts in our experience lead us to the conclusion that Mr. Snow's well, an account of the restoration of which has led us to pen this article, was purified more by the agitation of the water by the bag of charcoal being pulled up and down in it, than by any influences of the coal itself.—*Homestead.*

STRAW WORK.—The California *Farmer* congratulates the women of that State on the recent introduction of the Nonpareil wheat, from the straw of which the famous Italian straw bonnets are made, known as Tuscan straw, and predicts that "tens of thousands of dollars now sent out of the State for straw bonnets will be given to our own women for labor."

*For the New England Farmer.*

### PREMIUMS AT AGRICULTURAL FAIRS.

WHAT THEY SAID UPON THIS SUBJECT AT THE  
CONCORD FARMERS' CLUB.

JAMES P. BROWN said the man who presents some new and useful plant or implement, or who takes pains to raise and train a fine animal, should receive the premium, and be encouraged, rather than one who obtains something accidentally. The man who has, with great care and pains, raised a pair of oxen, and got them well broken, should be rewarded, rather than one who has been to Brighton and found a good pair ready for work. There has been good reason for complaint in this particular. In too many instances, the man who can tell the largest story gets the prize. Full statements in writing should be required. It might be well that they should be made under oath. The whole process by which any article or animal has been produced should be stated, so that others may be benefited. He has known instances in which a good deal of deception has been practiced. Sometimes, men have bought articles and exhibited them for premiums. This is wrong. The man that would do this should be debarred from ever taking a premium afterward. When a premium is offered for the best managed farm, full statements should be required of the various crops raised, with the methods of cultivation, and an exact account of family expenses.

Mr. A. H. WHEELER said premiums are now withheld from many objects to which they were formerly given, as orchards and farms. There are not premiums enough given to encourage the invention and perfection of agricultural implements, as plows, mowing machines, &c. Premiums might be profitably given for crops raised in different ways. A premium for the greatest number of pounds of grass on an acre, at one or two crops, would stimulate effort. Premiums should be given for the best dairy, rather than for the best cow. Statements should show the income of the dairy, and the process of making the butter and feeding the cows. He has an idea that premiums are sometimes given to the man, rather than to the article exhibited. He does not think the object of the State, in giving \$600, to be awarded in premiums, was to favor individuals. He thinks that, at plowing matches, premiums have been awarded for the work done by a certain plow, rather than for the best plowing.

E. WOOD, Jr., said it was impossible for committees to satisfy all competitors. The Trustees appointed the best men they could get, on committees. They must take men from different towns. He was present at the last meeting of the Trustees of our County Society, and he knew that pains were taken to put the best men on the committees. Many think that injustice is done them, because they do not get the premiums. The Trustees would be glad to give more premiums, if they had funds. He thinks premiums should be given on farms. This would give opportunity to make valuable statements, and would afford a basis on which to make a report. The Secretary could not make an interesting report without statements. If \$25 or \$50 were offered as premiums on farms, it would bring out statements on farm management, on draining, manures, &c., that would be worth more than anything else.

Such statements would be the first things the farmers would read. He had been looking over the Essex county report, and found valuable statements on farms, sheep and root crops. Our Society is losing ground by not paying attention to these subjects. The society above referred to, reports more than thirty bushels of wheat to the acre. He believes these reports to be honest. He is sorry the premiums for spading have been discontinued. This was an interesting part of the show, and it is an important farm operation, especially among trees. One-horse mowing machines will come into use, and premiums should be offered to encourage them. Why should not the man who makes the largest quantity of good manure from the least stock have a premium? We do not make as much manure as we might. He carts into his cellar a great deal of material to absorb the liquid manure. But to-day, he easily found two hogsheads full of urine. A premium should be offered for the best management of manure.

The President, MINOR PRATT, said he had sometimes thought the statement should be the subject of the premiums rather than the article. He inquired if making the show popular should be the object aimed at? If so, horses would draw better than anything else. E. WOOD said if we had a large track, the trotting and racing of horses would attract more attention than all other things exhibited. He thought the track of the Middlesex Society was just right.

The Secretary, Dr. REYNOLDS, said premiums should be given to encourage those things that need encouragement. At the present time, the raising of wheat, the renovating of exhausted pasture lands, the best methods of feeding milk cows, upland draining, the best modes of applying manures, and the kinds of manure for particular crops, are among the subjects demanding attention. Objects that no longer required encouragement might be dropped, and the premiums offered for those that do need it. The offer of premiums would awaken attention to the subjects for which they were offered. He thought this principle should always be kept in view, in offering premiums. He had observed that some men wanted premiums offered for such things as they raised in high perfection, as they would then have a good chance to get them. He understood that the State offered premiums to improve agriculture in those particulars in which it is deficient, and not to encourage those branches that do not need it, that are now nearly or quite perfect. Premiums were offered for foreign stock to improve the breed of stock, because it needed it, and it was believed that it might be improved.

They offered premiums for plowing, to improve the plows and the modes of tillage.

They offered premiums for fruit, to improve the kinds and increase the quantity, and this had been the effect of them. There had been a great improvement in all these respects.

If we had arrived at a good degree of perfection in these and other branches of husbandry for which premiums had been given, we should now attend to other things in which improvement was more needed. We should not continue to give premiums merely because they *have* been given, but should vary them from time to time, so as to call the attention of the farmers to those things that are falling behind, or to which it is believed they

might profitably give more attention. He had observed in the report of many of the county societies that premiums were given for objects that were entirely neglected in this county, such as farms, sheep, field crops, soiling, manures, and many others. These subjects enabled committees to make reports that embodied their experience and observation, and were of great value. He thought a committee to visit farms, if they were the right men, would do more to add members to the society, and to awaken an interest in agriculture, than the amount of money required to pay their expenses would do in any other way. Indeed, he believed money expended for this object was the best investment the society could make. The Trustees of our societies should inquire every year, what particular department of agriculture needed special attention. When the reeption of premiums became a mere matter of money-making, the object for which they were designed was no longer secured.

#### THE COTTAGE UNDER THE HILL.

No lordly elm trees are swaying there ;

But the rustic oak and the cedar fair,

That grow by the winding rill,

Their tall heads wave on the summer air,

O'er the cottage under the hill.

The robin loves at the twilight hour,

Ere he fitteth away to his resting bower,

His evening song to trill ;

And the wild bee sings from the violet flower,

By the cottage under the hill.

The wild vine hangs from the moss roof low ;

And always with a motion sweet and slow,

As over the grass so still

The western zephyrs softly blow,

By the cottage under the hill.

When the shades of night creep o'er the lea,

Three prattlers group round a strong man's knee,

And their eyes with weeping fill,

As he telleth of her who sleeps under the tree,

By the cottage under the hill.

No gold or silver are stored within,

But a crowned monarch would sigh to win

The peace so holy, still,

That bodeth far from the court of sin,

In the cottage under the hill.

**WHEAT IN NEW HAMPSHIRE.**—From the *Journal of Agriculture* we publish the following paragraph in relation to the growth of wheat in the vicinity of old Dartmouth.

“Col. Culver, of Lyme, has grown on six acres of fall sown wheat, 180 bushels, and on three spring sown, 120 bushels. The Town Farm, in Hanover, on a field of six acres, produced 226 bushels. John D. Bridgeman raised, on a little less than two acres, 96 bushels ; and Elijah Tenney, East Hanover, from three bushels seed, on 2½ acres of soil, grew 125 bushels of nice spring wheat.”

**COST OF MARKETING.**—Gov. Kirkwood, of Iowa, in an address at the Muscatine County Fair, stated that it cost him about 20 per cent. to market his beeves ; 40 per cent. on wheat, 60 on corn and 4 per cent. on wool.

#### POOR MILKERS DRY UP COWS.

The great importance of having cows properly milked is very forcibly illustrated by the facts stated in the following article, copied from the *Boston Cultivator* :

When I first commenced farming, I milked all my cows with my own hands ; and the result was, that no one in the town could boast of having made more butter, according to the number of cows, than we. I well remember of having a very noble cow for milk, which would fill a twelve-quart pail twice a day ; and that a friend while visiting us was anxious to milk her. As I was well aware of the bad results of permitting a poor milker to milk cows that are accustomed to be milked by one faithful, regular hand, I *unwillingly* consented that he might milk her. The result was that he obtained about one-quarter *less* milk, than she was accustomed to give ; and although I tried, faithfully to draw more milk, after he had finished milking, my efforts were in vain ; and it was several days before I could obtain from her the amount which she had been accustomed to give.

My manner of milking was to milk as fast as possible, until a cow was milked entirely clean. I was obliged, at one time, to stop milking for only a few minutes, and I found that the cow had drawn up her milk, and I could not get it that evening.

His manner of milking was very slow and easy ; and after he had been milking about as long as I was accustomed to be in milking her, she withheld the remainder, and nothing that I have ever heard of, would induce her to let it down again. This taught me the importance of employing one steady regular hand at milking.

In the seasons of 1858 and 1859, my wife complained very much, when I did not superintend the milking, that we did not get near as much milk as when I was there to attend to it. Of course I could not always be there, at milking times.—Then the milking would devolve on a young man in my employ, who *could* milk as well and as quickly as myself, when he had a *mind* to do it. But as he had inherited almost every characteristic of the human race, but the faculty of *pleasing*, or of trying to please, or of making himself agreeable, even in the society of cows, when I was not there, for the slightest offence he would fall out with the cows and beat them, and have them all in commotion. Then, of course, they would not give down their milk ; for a cow has complete control of it, and she will not give it to a being that she hates. All that could be said to him about being gentle with them, and milking fast while he did milk, and keeping his finger nails cut short, &c., had no more good influence than this communication will have on hundreds of other boys in their boyhood, who think they will make cows and everything else obey their commands.

In the spring of 1859, my wife insisted that I should do the milking. I attended to it as long as was expedient, and then told this young man that he must attend to the milking and try to do it right, and to have no difficulty with the cows. Well, in less than two days, my wife said, “What is the matter with the cows, that we get only about half as much milk as usual ?”

The truth on the subject is, cows know much

more than some persons think they do; and they will not love a milker who has nothing lovely about him, and who will not treat them kindly; and they will give him as little of their milk as possible.

S. EDWARDS TODD.

*Lake Ridge, Tomp. Co., N. Y.*

*For the New England Farmer.*

#### HOW TO SAVE MONEY.

MR. EDITOR:—I thought I would solve the mystery of money-getting on a farm for a woman, and enlighten the mind of Miss Sallie. She says, by her own exertions she has partly managed to get an education for herself, and now inquires how she can earn money. I am somewhat surprised at such an inquiry from her, but nevertheless will try to elucidate the point.

In the first place she must have prudence and industry, without which she cannot get money off or on a farm, as money in the hands of a spendthrift is of no account.

My own experience in living on a farm is to the point. When a mere child I had money to loan that I had earned. My father had a large family that I helped to bring up. I had not only money enough for my own but other's comforts, all out of my earnings. Sallie says she has partly educated herself; that is very well; the expenses of a school education were mere trifles to me.

For twenty years last past I have lived in a city; but now I am on a farm laid up with a fractured limb by being thrown from a carriage. It is more than a year since the accident, and I cannot now take a step; but since I have been able to sit up, I have earned plenty of money by merely braiding palm leaf hats at four cents apiece. I have bought all I want, and scarcely know what to with the surplus.

Industry and prudence well carried out will work wonders. I often see, as I sit by my window, a woman riding in her own carriage, which was bought by palm-leaf hats made by herself at four cents apiece! What does Sallie think of that? Prudence and industry startle young America. She must have instead the skating-park and the race-course, where the young woman prepares herself for a wife and mother with sprained ankles and perverted tastes.

A FARMER'S DAUGHTER.

*N. H., Nov., 1860.*

AN OLD APPLE TREE.—At the late exhibition of the Hartford County Horticultural Society, a basket of apples from Mr. D. F. Robinson bore the following label:

*“English Pearmain from Charter Oak Place.—The tree from which these apples were gathered is said to have been planted by George Willys, the original proprietor of the estate, about 224 years ago. Though tottering, it has yet strength—trembling at once with energy and age. New, but vigorous branches, amid a few withered hands that still stretch out, continue to shoot from its dilapidated trunk, as if it hated to yield its life, and clung, monument and memorializer of the sturdy hands that planted it.”*

*For the New England Farmer.*

#### HABITS OF THE WOODPECKER.

Much has been published recently in the agricultural, and other papers, in relation to the merits and demerits of the woodpecker. None of them come quite up to my impressions on the subject. Did the woodpecker confine its operations to the seat of the borer, near the roots of the apple tree, there could be no doubt of the merits of its labor. It may be that, sometimes, in search for the worm, sad havoc is made on the bark and wood, but generally their billing and boring cannot but be beneficial. But the bird does not confine its labor to the seat or retreat of the worm. It perforates the smooth bark of the tree in a succession of rings from the ground up, into and among the branches. The closest scrutiny cannot discover any traces of worms in or about the holes in these rings. It used to be said, and may be so still, that these birds are sap-suckers, and that these perforations are made to extract sap from the tree.

It has been said that these woodpeckers or sap-suckers select the bodies of the sweet apple tree as affording the most acceptable juice. The facts, as I have investigated them, do not warrant such conclusion. It is true, the bird makes selection of the tree it operates upon, but I could never discover that it had any connection with the character of the fruit it bears. Watch the labors of the bird, and you cannot discover any appearance of its tasting the sap if any ooze from the wounds. It drills the holes an inch, more or less, apart, with diligent haste, without stopping to suck sap or search for worms. Sometimes it appears to be a mere amusement of the bird, and with no object in view. Probably, however, it is obeying an instinct of the species to make holes for the use of the insects for the deposit of their eggs, and for the future feasting on the grubs by the provident depredator. Such was the opinion impressed upon me in my boyhood; and in my youthful sports many woodpeckers found their death in obedience to instruction to save the orchard.

The instinct of birds is a curious speculation, and many of their doings are difficult to account for. The ordinary acts of woodpeckers, in exploring old trees for their daily food, are mere business transactions; but when they perch on the top of some dead, dry and sound tree, and hammer and drum upon it for a long period, I can hardly determine its object, whether for its own amusement or that of its mate's, or any other object, I know not. It may be instinctively a trial of its power and skill, both in its drumming on the dead tree and the perforations of the body of the green apple tree. It does not, however, confine its operations on the apple tree, but attacks in the same manner many trees of the forest. The bird is becoming scarce, and does but little mischief to what it did sixty years ago.

RUFUS MCINTIRE.

*Parsonsfield, Maine, Nov., 1860.*

COMPOSITION OF APPLES.—Every one will understand that the various sorts of apples differ much in composition, yet, in an average condition, 100 lbs. of fresh apples contain about 3.2 lbs. of fiber, 0.2 lbs. of gluten, fat and wax, 0.16

of caseine, 1.4 of albumen, 3.1 of dextrine, 8.3 of sugar, 0.3 of malic acid, 82.66 of water. Beside the above mentioned bodies, the apple contains a small quantity of tannic and gallic acid, most in the russets. To these acids apples owe their astringency of taste, and the blackening iron or steel instruments used to cut them. The percentage of ash in apple is small, yet it is rich in phosphoric and sulphuric acids, potash and soda. The dry matter of melons contains quite a large percentage of albumen, caseine, sugar and dextrine, with a small quantity of acid.

PATENT OFFICE REPORTS---1859.  
AGRICULTURE.

In his introductory note to this volume, Commissioner Bishop compliments the national government on the results of its patronage of agriculture, and offers his recommendation for its future action in the following terms:

It is now about twelve years since Congress adopted the system of making annual appropriations for agricultural purposes. Previous to this time, there seemed to be but little progress made by the people in this branch of our national industry. Agricultural newspapers were then in their infancy, while agricultural societies were scarcely known or heard of. The attention paid by Congress to this subject seems to have awakened the people to its importance. It has stimulated inquiry, encouraged new experiments, and to such an extent has the public mind been excited, that agricultural societies have been formed and are now in successful operation in nearly every county and State throughout the Union. Newspapers entirely devoted to agriculture are published in nearly every State, and at prices which place them within the reach of all. Enterprising men in all the principal cities have established agricultural warehouses, where varieties of seeds, plants and cuttings, from foreign lands, as well as from different sections of our own country, can be purchased upon reasonable terms.

More recently, a national agricultural society has been established, which will undoubtedly prove valuable as a medium of communication between the various county and State societies. Indeed, so thoroughly have the public become impressed with the importance and necessity of paying more strict attention to improvements in agriculture, that it may well be doubted whether anything Congress may do can give an additional impetus to the movement.

If, therefore, it is the desire of Congress to continue the appropriation for agricultural purposes, I would recommend that it be limited solely to the collection of valuable information for the agricultural report and the collection and distribution of such varieties of foreign seeds, plants and cuttings, as have not heretofore been introduced into this country.

We believe, with the Commissioner, that the people are pretty well awakened to the importance of agriculture; but we do not agree with him in the opinion that such awakening is, in any considerable degree, the result of Congressional "appropriations" or "attentions."

In our opinion it is doing full justice to Congress to say that our government has followed, not led, in this movement. While we admit that agricultural newspapers and agricultural societies have greatly increased, we should not be willing to affirm that the first was in its infancy, or the last "scarcely known or heard of" only twelve years ago! But we do not intend at this time to discuss the subject. We are disposed to give Congress credit for all it has done, and for its good intentions for the future, which we hope will prove to be more liberal than the recommendations of the Commissioner seem to indicate. That the government which claims to have given such an "impetus" to this great leading branch of our national industry, should now limit its efforts "solely to the collection of valuable information for the Agricultural Report, and the collection and distribution of such varieties of foreign seeds, plants and cuttings, as have not heretofore been introduced into this country," appears to us not to be in character with the progressive spirit of the age and country in which we live. Especially would it seem that something more ought to be done, when it is remembered that our government is even now obliged to communicate with the agricultural world through a "PATENT OFFICE REPORT." The agricultural interests of this nation tucked into a corner of the Patent Office!

But we are sadly digressing. We commenced with the purpose of writing a simple "book notice" of the volume whose title heads this article.

About one-fourth of the Report for 1859 is occupied by an account of the Government Experimental and Propagating Garden at Washington; a Historical Sketch of the U. S. Agricultural Society; several articles on American Grapes and their wine-producing qualities; and a minute account of the productions of the Ionian Islands and Italy.

In the latter paper, some rather curious matters are mentioned. Sumac is cultivated near Palermo. The same soil will not bear this plant a second time, unless cropped by something else for twenty years, nor is it then so good as land on which it has never been grown. Workmen employed in a mill for grinding sumac, and who breathe an air filled with particles of its dust, are remarkably healthy, and were particularly exempt from cholera. In Sicily, good cows give only from four to six quarts of milk per day. The native sheep are small and scraggy. The ewes, which are milked regularly, give about half a pint per day. A one year old hog weighs, if fed on acorns, one hundred and twenty pounds; a two-year old, one hundred and eighty pounds. The usual rent of land for corn, &c., averages about one dollar and seventy-five cents per acre. The

orange and lemon orchards rent higher. The laborer receives about twenty cents per day. Two-thirds of the island belong to the church, and such is the policy of government that tenants take no interest in improving the land, and content themselves with a bare subsistence.

#### FERTILIZERS.

The Hon. Thos. G. Clemson next fills some forty pages with a dissertation on "Fertilizers." The picture which he draws of the future of our agriculture is rather gloomy.

"Farm as you may, upon the majority of soils, without the use of extraneous fertilizers, your crops will certainly diminish until total impoverishment shall leave no other alternative than starvation or emigration. . . . Exhaustion is but an affair of time; knowing the amount of nutriment in the soil, we may make an approximate calculation, and decide when, under different modes of treatment, it will work sterility."—pp. 172-3.

Of the elements of fertility he regards phosphorus the most important, the most liable to loss, and the most difficult to be procured.

"There can be no civilization without population, no population without food, and no food without phosphoric acid. Indeed it might be easily shown that the march of civilization has followed the direction of supply of that article."—p. 172.

For all the other substances essential to fertility he thinks farmers need feel comparatively little anxiety, as they abound in earth, rocks, air and water. So indeed does phosphoric acid, but not in the same profusion as the other substances, and the amount returned from the barn-yard is infinitely less than that carried away from the soil in grain, hay, milk, bone and flesh, "even on the most economically regulated farms." The loss that is constantly taking place in this most essential element of fertility and life is greatly deplored by the writer of this paper. He mentions several ways in which this loss occurs,—among others, "the burial of the dead." "By this practice," he says, "much is entirely withdrawn from circulation; for the depth at which the bodies are deposited in the ground, is below the reach of vegetation." Allowing four pounds of phosphorus to each individual, he makes some calculations of the amount of loss which occurs in this way.

By the importation of bones, the principal fertilizing element of which is phosphoric acid, and other foreign fertilizers, he thinks England has attained her present prosperous condition. This importation has increased "to an enormous extent during the last few years," yet as long ago as in 1837, no less than \$1,273,000 worth of bones were imported into the United Kingdom—while the home supply was estimated at \$2,500,000.

Directions are given for the preparation of

bones, and farmers are earnestly cautioned against fraud in prepared manures, and advised to manufacture their own composts.

But this essay is by no means confined to a single subject. Considerable space is given to irrigation. In this connection he makes the following extract from Liebig:

There is not to be found in chemistry a more wonderful phenomenon, and which more confounds human wisdom, than is presented by the soil of a garden or field.

By the simplest experiment, any one may satisfy himself that rain-water, filtered through field or garden soil, does not dissolve out a trace of potash, ammonia, silicic or phosphoric acid. The soil does not give up to the water one particle of the food of plants which it contains. The most continuous rain cannot remove from the field, except mechanically, any of the constituent elements of its fertility. The soil not only retains firmly all the food of plants which is actually in it, but its power to preserve all that may be useful to them extends much further. If rain, or rather water, holding in solution ammonia, potash, phosphoric or silicic acids, be brought in contact with the soil, these substances disappear almost immediately from the solution. The soil withdraws them from the water. Only such substances are completely withdrawn by the soil as are indispensable articles of food for plants. All others remain wholly or in part in solution."

The action and importance of lime, marl, plaster, sulphate of barytes, magnesia, &c., &c., as well as phosphorus, are fully explained and illustrated. Drainage is left to works specially devoted to that important subject.

In relation to the state or form in which plant food is absorbed by vegetation, Dr. Clemson says: "Plants assimilate food in a state of atomic division." He thinks the received opinion that plant food must necessarily be in a soluble state for assimilation, is contradicted by facts.

"It is well known that plant vitality has the power, as it were, of corroding insoluble substances, and absorbing them by the roots. Varieties of plants growing upon rocks contain large quantities of the substance of which the rock is composed. Such is known to be the case with lichens growing on calcareous rocks. Again, the roots of the grape-vine have been found surrounding, and its rootlets insinuated in every manner through, around, and enveloping a piece of bone, which finally disappears.

CUTTING OFF COWS' TEATS.—Mr. S. E. Todd, of Lake Ridge, N. Y., has removed troublesome supernumerary teats from his cows by twisting very small wire so tightly around them as to stop all circulation. In three or four weeks the teats dropped off without producing soreness in the udder, which healed in a few days. In describing his process in the *Boston Cultivator*, he says he fastened his cows so that they could not kick, and twisted the wire with pliers.

PATENT OFFICE REPORT FOR 1859.



FEW weeks since we gave attention to some of the leading articles making up this report for the year 1859, and now continue notices of some others, which will be found interesting and profitable. We are glad to find attention turned to the subject of *Veterinary Science and Art*, a

science too imperfectly understood by our people, considering the progress that has been made in other departments of our agricultural pursuits, and hope for new light that may enable us to treat the diseases of our animals in a more rational way.

VETERINARY SCIENCE AND ART.

There are three articles on the various branches of this subject, and one on the *Acclimation and Domestication of Animals*, which is said to be a proper object of veterinary science.

Dr. B. F. Craig, of Washington, the writer of two of the above articles, makes quite a different statement of the results of medicine on the human race, from that lately expressed by his brother Holmes, of this city. He quotes the Genevan statistics, extending from 1549 to 1833.

“If we take from the Geneva tables the percentage of the whole number born, who survive to different periods of adult or useful life, we will find it to have varied in different centuries, nearly as follows :

| Of 100 Persons, there lived | In the 16th century. | In the 17th. | In the 18th. | In the 19th. |
|-----------------------------|----------------------|--------------|--------------|--------------|
| To the age of 20.....       | 39                   | 45           | 56           | 66           |
| To the age of 30.....       | 30                   | 37           | 49           | 59           |
| To the age of 40.....       | 20                   | 30           | 43           | 52           |
| To the age of 50.....       | 14                   | 22           | 35           | 44           |
| To the age of 60.....       | 9                    | 15           | 26           | 32           |

By this table we see that where, in the sixteenth century, nine persons lived to their sixtieth year, thirty-two persons do so now; and if we take the average number of survivors for all periods of adult life, it will be found to be at the present time considerably more than double what it was three hundred years ago.”

Having shown that medical science has done so much for the human race, the writer urges the importance of extending its benefits more generally to our domestic animals.

ENGLISH PLOWS AND PLOWING.

Our Associate, Judge French, who visited England a few years since, gives in this article his observations and impressions on this subject, including a notice of English and American steam plows. His observations were critical, and those who are curious in this matter will do well to read the whole article with care.

FARM JOURNALS.

We notice this brief article by Mr. J. L. Gow, of Washington, Pa., for the purpose of repeating one of the many advantages which he enumerates of keeping Farm Journals :

“Young men, and even children, participating in them, become more and more interested in the matters of the farm, not only learning to write, (which of itself is important,) but at the same time to express any particular subject or event in proper ideas and words, thus acquiring that happy faculty which, with many, is the labor of years—to write clearly and forcibly.”

GREEN SOILING STOCK.

D. S. Curtis, Esq., of Madison, Wisconsin, furnishes an article on soiling. He says that “it can be clearly shown that the system will pay, several times over, even in the new States, where lands are cheap and plenty.” That soiling or keeping cattle all summer in barns or yards, and feeding them on green food raised and cut for the purpose, might be adopted by some of the dairymen near the large cities of the olden States, we have little doubt, but we think Mr. Curtis will make slow progress in convincing the stock-growers of the South and West that the system will answer with them just yet.

SOME HINTS UPON FARM HOUSES.

An essay, with sixteen illustrations and many more capital hits, by Samuel D. Backus, New York. Our own style of building and that of our ancestors is thus contrasted :

“Indeed, it is doubtful whether, in view of the available means and opportunities of the people, the earliest houses on this continent were not better than the most recent ones. \* \* \* The very abundance of our resources, and the freedom of our choice, instead of inciting to a wise discrimination, seem only to have developed an inconsiderate lawlessness.”

He defines architecture to be “the construction of our buildings so as best to suit us, with the very best use of the means at hand,” and not, as many suppose, “an inflexible set of rules, made by infallible authority.”

METEOROLOGY.

Prof. Henry, of the Smithsonian Institute furnishes an article of some 64 pages on “Atmospheric Electricity.” We hardly know why this paper should be headed as it is in the Patent Of-

fice Report, "Meteorology in its Connection with Agriculture," unless it is because it is published in an agricultural volume.

On the efficiency of lightning-rods, Prof. Henry says:

"In a house properly provided with lightning-rods, however many discharges may fall upon it, we are well assured from full experience and established principles, no damage can ensue to the occupants within."

The long articles on "The Construction and Arrangement of Horse Stables," and on "The Principal Plants used as Food by Man," are translations from foreign publications, which we have not space to notice. Papers on "Vegetable Fibre," and "Fish Breeding," some fifteen letters from as many United States consuls about "Tobacco," a variety of short miscellaneous articles, with a "List of Patents for Agricultural Inventions for 1859," must also be passed without notice.

*For the New England Farmer.*

#### REVIEW OF THE GROWING SEASON.

As the close of another year is approaching, it may not be unprofitable to review the progress of agricultural affairs during the season.

Spring opened early and very favorably, and farmers commenced work with an apparent determination to put in all the seed they could. The ground had been well frozen during the winter, and it was generally remarked that the land is seldom in so good condition for plowing. Even stiff clay soils turned up as fine as rich loams, and could be cultivated early.

The 4th month was dry, and an unusually large breadth of land was sown and planted. Mean temperature of the month, 42°; depth of rain 4.5 of an inch.

The 5th month was warm, and wet enough to bring vegetation forward as fast as desirable. The first week was hot, the mercury rising to 78° in the shade the 6th. Plum trees were in full bloom the 11th, pear trees the 13th, and apple trees the 22d. Mean temperature, 60.18°; depth of rain 2.9-10 inches.

The summer and autumn were wet, and the temperature was not far from an average for a term of years. We had no drought during the season; thunder showers were frequent, and considerable damage was done. The nights in the 7th month were uncommonly cool, and it was feared that corn would be injured, yet it grew well, though it is quite probable that warmer weather would have made more full-grown ears.

Some sudden changes of temperature occurred. The 12th day of the 6th month the mercury fell to 41°, and the 13th it rose to 85°, a difference of 41° in about 36 hours. The mean temperature of the month was 67.09°; depth of rain 1.88 inches.

The mean for the 7th month was 67.36°; depth of rain, 4.31 inches—nearly an inch above the average depth at the Toronto Observatory for the last 19 years.

The 8th month was warm, a portion of it hot, and generally favorable for harvesting. Grain

ripened remarkably well, and proved to be but very little injured by the weevil. No appearance of rust in this section. Potatoes began to show signs of disease about the middle of the month. Mean temperature, 67.93°; depth of rain, 3.17 inches.

Light frost appeared the 2d and 3d of the 9th month, but no damage was done. The first general frost occurred the 29th, the mercury falling to 26°, and in the morning of the 30th, it fell to 27°.

A fine aurora borealis was seen on the night of the 6th. We had an unusual amount of lightning and thunder for that month. Cloudy weather and frequent rains somewhat retarded harvesting.

Corn was ripe before the frost, and the crop is good. It is the universal practice here, to cut up corn as soon as there is an appearance of hard frost, and I am rather in favor of the practice, though in my boyhood I was accustomed to "top the stalks." The fodder seemed to be more palatable to stock, than the butts from which the tops have been taken, and I believe the corn ripens equally as well.

The 10th month was a very unpleasant one; part of the time was cloudy; indeed, we had but two clear days, and rain fell in thirteen. A great deal of buckwheat was lying in the swath at the close of the month. The 29th I saw forty acres in one field, and water was standing on a part of it. Pease were not all cut, and many fields of potatoes were not dug. The mean temperature of the month was 48.78°; depth of rain, 3.90 inches, which is 3.39° in temperature, and 1.15 inches of rain, above the mean for the last 19 years at the Toronto Observatory.

The first week in the 11th month was very warm. The mercury rose to 70° the 1st, and to 69° the 2d, in the shade. Mean for the first six days, 53.3°. At this time, the 16th, the weather is fine. The temperature has not yet fallen below 26°, and though the mornings are sometimes frosty, the ground has not been frozen to any extent. Harvesting is nearly completed, though some corn and buckwheat are still out.

The season has been one of the most productive on record. Crops of all kinds are bountiful; nothing has failed, though hay was light. Fears were entertained with regard to potatoes, but the crop is not seriously damaged in this region.

Prices for all kinds of produce are good, and farmers are in high spirits. The weather is fine, this week, and plowing is the principal business.

The extremes of temperature at this place have not been as great as in some years, the minimum being 14° below zero the 5th of 1st month, and 86° the 7th of 8th month, showing a range of 100.°

L. VARNEY.

*Bloomfield, C. W., 11 Mo., 1860.*

INAPPROPRIATE.—A correspondent of the *Ohio Cultivator*, criticising the taste of a very rich man whose grounds were laid out in the most expensive manner, says: "A very small pond, trimmed with bright green grass to the water's edge, had more than a lumber wagon load of great conch shells scattered around its edge. The pond was pretty, and the shells, too; but the idea of those great shells washing out of that tiny pond *on the green grass*, made us all laugh."



*For the New England Farmer.*

### FLAT ROOFS.

Sloping roofs cannot, methinks, be much, if any, more economical than horizontal ones. We adopt in building, now, very much, the French style of roof. It must cost nearly, if not quite, as much as it would to build the walls equally high around and put on a flat roof. The upper rooms of a properly constructed flat-roofed house will be more valuable and agreeable than the attics of the best French roof. The horizontal roof affords a convenient and agreeable out-of-door place for a morning promenade and airing and view. Also for an agreeable evening sitting when it is suitable weather, above the dust and annoyance of insects, and the gaze of the street. It is a sunny spot for the cultivation of plants and flowers. It is far more suitable in summer than the greenhouse for them. We are not endangered by snow slides from such roofs; they can, without danger, be cleared of snow. But a coating of snow upon the roof saves somewhat of the fuel used in the house. The wind will remove a light or dry snow and the sun will melt away snow from this roof more speedily than from the steep roof—or the double or four-sided ones. The water from this will flow gently off in every direction and will wear it less than steep roofs. Such style of houses would be pleasing to the eye with a handsome railing around its roof; supported by small iron pillars or suitable frame-work in the ceilings beneath, it will remain firm and level. With a suitable coating it will remain impervious to moisture, and can be arranged to prevent the descent of the summer's heat into the house. G. O. B.

REMARKS.—Thank you, sir. Roofs are expensive, wear away rapidly, and the best material for them, as well as the best mode of constructing them, are very imperfectly understood. As it would be a little inconvenient to dispense with roofs in our climate, and as most of us do not hold the key of the exchequer to reconstruct them when we please, we shall be glad if "G. O. B." will let his light illumine our pages again. The subject of farm buildings especially needs discussion.

SHADE TREES IN PASTURES.—Upon the first subject you mention, viz.: "Should shade trees be allowed in pasture fields?" there may be, perhaps, two opinions, but the one most generally held is against shade, unless it is in the immediate vicinity of water.

The most important object to be attained in grazing, next to good and plentiful grass, is that the cattle shall be free from any disturbance whatever, and that they shall take as little exercise as possible. In the first place, then, if the shade trees are at any distance from the water, the cattle will collect under them, and in hot weather will often stand there until their drinking time arrives, and then run in a body to the water, where they will push and fight for the first drink, and then run back again to the shade. I have seen them do this often. Then again, one of the greatest enemies to fat cattle is the biting-fly, which loves the shade as well as the cattle,

and when the latter are huddled together under the shade, they suffer a great deal more annoyance and worrying than they do out in the open field. I have seen bullocks smart enough to leave the shade, and stand out in the sun all day, and they seemed to thrive better by it. If, however, a man has a stream running through his field, where the cattle can stand over their knees in water, let him by all means have abundant shade on the banks. His cattle can then stand, their legs protected, and whisk the water over their backs with their tails, and bid defiance to the flies.—R. W. DOWNMAN, in *American Farmer*.

*For the New England Farmer.*

### OUR GRANDMOTHERS.

Is it possible that "Polly" can believe what she asserts in her last article, viz.: "that not one-fourth of our grandmothers could read or write? That they were merely educated for work, to bake and brew, make and mend," while their mental powers were left slumbering? Why, one would judge from "Old Spinster's" and "Polly's" statements that the ladies of a half century ago were scarcely civilized. It is true that they had not the advantages for education that we have. Ten or twelve weeks of the year at school was thought sufficient. But those few weeks were so well improved that pupils often made more progress in one session, than scholars at the present time make in four. I venture to say that most ladies, fifty years ago, had a more thorough knowledge of the standard English works than young ladies of the present day, although ignorant of many of the lighter accomplishments. Pianos they could not possess, as there were none, [few—Ed.] but the voice was not left uncultivated; singing schools and "Harmonic meetings" were in fashion then as now. I am satisfied, too, that they could appreciate *poetry* as well as good butter and fine linen. I well remember sitting by the side of our grandmother, whose head was white with the frost of age, but whose heart was all summer,—while she repeated page after page from Young's Night Thoughts. And there is a little treasure-box up stairs, containing time-yellowed papers, copies of poems, and letters which compare favorably with those now written. Although "Old Spinster" states that our grandmothers were "not educated to paint," &c., I think the old-fashioned paintings upon velvet which we see in so many homes, bear witness that the love of the beautiful was not entirely dormant, and that this God-given talent was not "hid in a napkin."

And not one girl in a hundred can embroider on cambric or silk as neatly and handsomely as did our grandmothers. We know that with all their "rude ignorance," they were the best of mothers. Had they been educated as mere household drudges, New England could never boast of such children as Daniel Webster, Charles Sumner, Henry Wilson, and the host of others whose names will never perish.

I cannot think that "Old Spinster" really believes that a woman who can barely read and write is fitted to faithfully perform life's duties. God would never bestow such intellectual gifts, if

they were always to be employed in baking, brewing, making and mending.

Books upon the table, pictures, flowers and music all about, and we have better wives, mothers and sisters, and consequently, better husbands, fathers and brothers. ANNA.

W——, *Mass., Dec., 1860.*

REMARKS.—Excellent. We believe in progress, but just as strongly believe that the present generation has no claim to *all the virtues* of the present century. There is a little frost-work, or *time-work*, about our temples, slightly indicative of a "long time ago," in which we remember women who were as much ornaments of society as any in our acquaintance now.

### CARROTS.

We have frequently had occasion to define the value of carrots as food for cattle, horses, etc., and, we think, have established the fact, that one acre of carrots will more than represent, in value of product, ten acres of oats, and still the amount of progressed inorganic pabulum taken from the soil by twenty tons of roots and four tons of the leaves of carrots, is as follows:

|                               | <i>Pounds.</i> |
|-------------------------------|----------------|
| Phosphoric acid.....          | 39             |
| Sulphuric acid.....           | 57             |
| Lime.....                     | 197            |
| Magnesia.....                 | 29             |
| Potash.....                   | 134            |
| Soda.....                     | 103            |
| And the elements of salt..... | 85             |
| Total.....                    | 644            |

When carrots are fed upon the farm, a large proportion of these inorganic constituents find their way back to the soil, and in so progressed a condition, that the amount parted with in the form of milk, animal flesh, etc., can readily be spared, for they are fully compensated for by the progressed condition of that portion returned to the soil, added to the consequent progression of the inorganic matters contained in the soil itself.

It should not be forgotten that the carrot while growing, throws off matter, which although inferior to the portion assimilated by the carrot, is superior in status to the condition at which it was received into the organism, and thus it is prepared to furnish higher results for the future.—*Ed. Working Farmer.*

CHEAP PAINT.—Noticing an inquiry for a cheap paint to put on old buildings, in answer I would say I have had some experience in that line, and will give the desired information.

In the first place, take some fine oil meal, mix it with cold water; then put it on the stove, and keep stirring till it boils. Then reduce it to the desired thickness with warm water. If you wish it white, stir in whitening, or any color you like. Apply with a brush, the same as paint. It fills the pores in the wood, so that after two coats, it will cost no more to paint an old building, than it would a new one. It penetrates the wood, and does not peel off like whitewash. It is never safe to paint over whitewash. It will last a number of years, as the oily nature of the meal keeps it from washing.—*A. B., in Country Gentleman.*

### CHURNING MILK OR CREAM ALONE.

The following report of an experiment by Mr. Zoller, a dairyman of St. Lawrence county, is from the Transactions of our State Agricultural Society for 1859:

Mr. Zoller's cows are what are called native, crossed with Durhams.

We desired Mr. Zoller to make an experiment as to the two modes of making butter, so as to furnish us the result. He has done this, and the result is as follows:

Sept. 10.—Took 208 quarts of milk and strained into pans—set till the cream had thoroughly risen—skimmed and churned cold—produced 17½ lbs. of butter, ready for packing.

Sept. 11.—Took 208 quarts of milk, strained into the churns, stood till sour, but not loppered, churned and treated in the same manner; gave 19½ lbs. butter ready for packing; being a gain of ten per cent. over churning the cream.

This, Mr. Zoller believes, is about the fair difference between the two methods; and if uniformly this result is secured, it certainly is an important advantage.

It will be seen by this experiment that 10 62-77 quarts of milk produced a pound of butter, which is a much less quantity of milk than the average returns of our dairies. Mr. Zoller is of the opinion that this is about the average amount of milk required under his system, under ordinary circumstances; but the trial, during the entire season, would probably alter this average.

We think there is enough furnished by this experiment of Mr. Zoller's which has been continued for some time past, to lead others carefully to test this practice. If 10 per cent. can be secured over the ordinary method of churning the cream, and if an equally good quality of butter can be made, it will need little urging to induce our dairymen to give attention to it.

PINE-APPLE CHEESE.—Mr. Norton, of Goshen, Ct., manufactures this form of cheese quite extensively. The *Homestead* thus describes the process:

The curd of about three hundred cows is bought and daily brought to the factory to be made into pine-apple cheese. These weigh about six and one-third pounds each, and about six hundred and fifty are made every week in the best of the season. They are pressed in smooth moulds, the marks upon the surface being made by softening them in hot water, and hanging them in nets made for the purpose. Here they hang till fully cured and fit to send to market. The whole number made this year is about ten thousand. They are carefully boxed and sent to market in the neatest order, and being made hard and firm, they improve with age, enduring any climate, and are in steady demand for shipping.

PLANTS FOR FOOD.—Linnæus found by actual experiment that the horse ate 262, and rejected 212 species of plants indigenous to Sweden; cattle ate 276 species, and rejected 218: while sheep took readily 387, and refused only 141. A sheep-pasture is a desert to a botanist.

*For the New England Farmer.*

### MAPLE SUGAR MAKING---HOW TO CONSTRUCT AN ARCH.

MR. EDITOR:—As it may possibly interest some of your readers, I will, with your permission, give a description of the sugar-arch of Mr. Wm. E. Toby, of this town.

It is built of the right length and breadth for the pans to the height of about two feet; the back end is built plain, the same as the sides, the chimney being upon the left hand front corner; then through the middle of the arch lengthwise is laid a tier of brick as high as the sides, and extending from the front end to within one foot and a half of the back end, the left hand half of the front end being bricked up. In the half of the arch next the chimney, stones are laid so as to throw the blaze against the bottom of the pans as much as possible.

Now I think every one must see wherein lies the peculiar excellence of this arch. It is the saving of wood, which is getting to be a very desirable object in most sections. It takes less wood to boil the same amount of sap, because the heat, instead of going directly into the chimney and perhaps blazing from the top, as I have seen it in chimneys of good height, is obliged to travel back under the pan, consequently but little of it gets into the chimney.

It would perhaps be well to place the division wall nearer the side upon which the chimney is, so as to allow the introduction of larger wood. I recollect seeing in the *Farmer*, some two or three years ago, some hints on sugar-making, and among other things the writer advised the use of the old-fashioned tubs, larger at the bottom, upon the plea that they excluded many leaves, pieces of bark, &c., from the sap. Now as you value your future happiness, do not follow the suggestion. I will admit that they exclude a few (and only a few) leaves, but what unhandy things to have around, when you come to stow them away; if you have a large sugar-place, you must necessarily do as the boy said his folks did with their hay, "stack what you can out-doors, and put the rest in the barn."

One thing more. If you can conveniently have your sap-holder higher than the top of the arch, buy a few feet of gas pipe, pass it through the chimney, making a coil or two inside; connect one end of it with the holder, which can be done with lead pipe, bring the other end of it over the pan and put a stop-cock upon it to regulate the flow of sap. Then the sap comes into the pan already warmed, and does not check the boiling as when a bucket full of cold sap is poured in.

Finally, build your arch after the above plan, have good wood, and my word for it, you will see the sugar "coming into a charming brownness," and not so very brown either, if you will only strain your sap and keep all milk, eggs, saleratus, &c., out of it.

JAMES TOBY.

*Calais, Vt., Nov. 26, 1860.*

**DEER FOREST.**—The largest modern deer forest is that of the Duke of Athol, which, according to his evidence in the late case of the Earl of Wemyss against Campbell of Monzie, extends to 400,000 acres. The next is the forest of Far-

quhason of Invercauld, but which is partly under sheep and partly under deer, altogether about 130,000 Scotch acres. Next to which ranks Lord Fife's forest, of Mar, about 60,000 acres. There are a number of other deer forests of much smaller extent, but the extent is not much increased of late years; and by comparison it will be found that the extent of ground under deer is now much less than it was a hundred years ago.—*Perthshire Courier.*

*For the New England Farmer.*

### THE LONG ISLAND LANDS.

WHAT JOHN JOHNSTON THINKS OF THEM.

LETTER FROM JUDGE FRENCH.

MR. BROWN:—I published my own opinion, to some extent, of the Long Island lands, last spring. That there should be a wilderness of vast extent, with a railroad through the heart of it, within two hours' ride of the city of New York, the best market in all the North, is a fact so strange that many conclude from it at once, that the land is worthless. With a climate far milder than New England, and from its island position, not subject to our severe droughts, the soil must be poor indeed, it would seem, to keep the land in want of purchasers at \$20 per acre. Those lands are covered with a low growth of scrub-oaks which renders the first breaking up difficult, and the first impression forbidding; but there are no stones, and no large stumps and no abrupt hills, and there is very little broken land. After the first plowing, a span of horses may do any work upon these lands that is required.

There is no great obstacle in the way of breaking up, but the question is, is the land valuable when it is cleared? I have not my former letters at hand, but I recollect well my impression as I passed over these lands, whether I have expressed it before or not, that they are eminently adapted to sheep husbandry.

The skinning process cannot last long on any land however fertile, and although it is very convenient for a few market gardeners to bring out stable manure from New York fifty miles on the railroad, yet the rank and file of the farmers must consume their hay at home, and make their manure there. In the four-course system of English husbandry—where turnips, barley, "seeds" or grass and wheat constitute the rotation, two crops, the turnips and "seeds," are consumed mostly by sheep on the farm, and two are sold. This precise rotation may not suit Long Island, but the principle of *home consumption of half the produce* suits all soils and climates.

John Johnston, of Geneva, New York, is, I think, a Scotchman, by birth, and the man who has done as much as any man alive in this country for practical agriculture.

He is the leader in drainage, and especially

tile drainage, in the United States, a plain honest farmer, who has grown rich by his farming.

His opinions are as valuable as those of any man within my knowledge, upon this very subject, and here is what he says, through the *Country Gentleman*, of the Long Island lands. I omit the part of his letter, which does not refer to the middle portions of the island :

"I took the cars at Hicksville to view the so-called barrens of Long Island, near Islip—especially that described and advertised by Dr. Peck. I stopped at Thompson Station, and called on Mr. Stone. He has a good house and barn, has cleared off considerable of the scrub oaks with which some half million acres are covered, and has some fifteen acres sown with winter rye. He has purchased some two hundred acres, and on terms of purchasing about four hundred more. He also took me to Mr. Taylor's and a Mr. Bridge's, who have also made settlements near him, and to a farm purchased by Dr. Stimson, of Canada West. His two sons are going ahead finely, clearing off the scrub oaks and rooting them out; they have a good deal of winter grain sown, and looking finely.

I noticed where they were digging cellars and wells, the soil was from two to three or four feet deep, and was gravel underneath—some of it quite solid, yet the soil seemed perfectly dry, and I can see no reason why it will not produce as well as any part of this highly-favored island. I had holes dug in many places, and found the soil nearly the same depth. I never saw finer apples than some grown there. I saw a peach orchard of some six years' growth, from which was sold \$400 worth of peaches this season. It is strange that this vast quantity of land laying adjoining settlements for two hundred years, should have laid until now in an unproductive state. I think it requires only labor to make it valuable land. A Mr. Wilson has a very fine farm on the same wilderness; he has one hundred acres improved and as fine-looking land as I ever saw, and I was told raises good crops. I could see from the looks of his clover and grass fields that his crops of clover and grass had been excellent, and I always think land that will produce good timothy and clover, must be good land. I was told that Mr. Wilson raised 3000 bushels of potatoes on these lands, from ten acres of land last year. The quality of the potatoes raised on these lands is excellent, so far as I saw. I also saw some very large onions raised from the seed, and some pretty good corn and turnips.

Now, Thompson is only two hours by rail to the city. It is strange that so much land remains in a state of nature so near that city that consumes so much of the products of the soil. I heard various reports about the cost of clearing the land—some said about \$13 per acre; others said to do it thoroughly would cost from \$20 to \$25. In a few years it will show what the land will do; these gentlemen have gone at it with energy, and I hope they will be abundantly paid for their enterprise. To look over the country on that wilderness, one thinks it a vast plain, but where cleared it is just rolling enough, and where I travelled through it, it appeared the same. If some thousands of Germans were settled there, I think

they would have gardens equal to any on the island. As I said before, the island has been settled over two hundred years; the lands, or a greater part of them have remained in the hands of the descendants of those families until this day, and excepting for their fast horses, the greater part of the farmers appear to be at least half a century behind the age. Talk to a Long Islander about the wilderness, and he will tell you it is not worth a dollar the whole of it; but I believe he does it through prejudice or ignorance, and I fully believe the time is close at hand that will make them change their opinion.

Mr. Wilson's farm may be some eight or ten miles from Thompson's Station, but also adjoining the railroad. He is said to be a man of wealth, and truly he appears to have a fine place and fine farm, and I was told he would have six hundred acres under cultivation in a few years. Thompson's Station is only four or five miles from the village of Islip—a great resort for the grandees of New York city in the hot season; it is also a port for shipping, and quite a handsome place, with very large hotels. The land around Islip, I was told, sells from \$200 to \$300 per acre, and three or four miles distance in the wilderness it sells at \$20, and I would not be surprised if the latter proved the best land by far, after it is cultivated a few years. The land around Paris, Canada West, I have been told by men who cleared it up, was all covered with scrub oak, and indeed the soil is very similar to the Long Island wild lands; and now there is no part of Canada where farming is more profitable than there; their barley excels, their wheat is also of a fine quality and early, turnips grow luxuriantly, as well as other root crops; and I see nothing to hinder the Long Island barrens from producing equally as well, if they were settled with as intelligent and enterprising farmers."

Of the island generally Mr. Johnston says :

"It is surely a fine country to keep stock, and a good market for fat stock quite near them. I did not see twenty sheep on the island, and there can be no better land to keep sheep, as it is all dry and raises the best of timothy and clover, where the land is kept in good condition. I would advise them to kill off their dogs and keep sheep. It will ultimately pay them far better than either carting or carrying their hay, straw and corn to the city. True, the city must have hay and straw, but as far as Long Island is concerned, they ought either to have double the price they get now, in order to enable them to purchase far more manure, or else consume it on their farms.

The land is of excellent quality, and mostly of easy culture, and if properly managed would be the garden of the State. The climate is much better than where I write; their spring comes two weeks at least earlier, and the fall frosts are as much or more longer in coming, and I do think it is an excellent country to farm in. I was told there were some men keeping dairies and doing very well; improving the soil and making it rich. Some are doing the same by gardening on a large scale, and many are doing well at the latter on a small scale; but how the farmer that sells all, or nearly all, his hay, straw and corn, can do well, I cannot comprehend."

I did not observe on the island any unsuccessful experiment in farming, by anybody who deserved success. I did see a single cow drawing a plow in a miserable garden, and a single steer harnessed to a wagon drawing a ragged-looking driver, and poverty following close upon intemperance; and as cause and effect seemed to maintain their usual relations, I expect when energy and industry, supported by the requisite skill, shall enter upon Long Island barrens, to see fruitfulness and prosperity attend their labors.

#### EXTRACTS AND REPLIES.

##### PORTABLE GRIST MILLS.

I want to get some *reliable* information in regard to the "portable" grist mill which I saw advertised in your paper. I want to know whether it may be driven by one of A. W. Grey's single horse power? These Powers are being manufactured in this town, and sold to the farmers round the country to thresh grain and saw wood with a burr saw, and drag or cutting-off saw, and are one of the greatest labor-saving machines we have among our farmers. I have from three to five hundred bushels of grain to grind, every year, and I have to haul it some two miles to get it ground, and frequently have to go the second time after it, which is no small job in the spring, when the roads are muddy. How fast can they grind, and are they durable, &c., &c.? What do they cost?

If you can give the desired information in your weekly *Farmer*, I have no doubt but there are others in want of some information upon the above subject, who would be much obliged for the same.

I have been driving one of Hickock's Portable or Hand Cider mills this fall, with my horse power, and I am very much pleased with the operation. I can grind with ease two bushels per minute, and the horse hardly knows he has done any thing. If I can get a grist mill that will do as well, I should be very glad.

S. W. SOUTHWORTH.

Middletown, Vt., 1860.

REMARKS.—We cannot give the information desired above, and shall be glad to have some person in possession of the facts supply it. The matter is an important one.

##### MIXING AND APPLYING PAINTS.

Can you inform me if there is any work which gives full directions for mixing and applying paint, especially for graining? I would like one which treats the whole subject in a thorough manner. If there are several books of the kind, please state their comparative merits, with the price of each.

WM. F. BASSETT.

Ashfield, Dec., 1860.

REMARKS.—The only work we can recall upon the subject is "*The Painter's and Varnisher's Guide*," which is sold by A. Williams & Co., Boston, for about 75 cents.

##### WHEAT AND OATS IN READING, VT.

I sowed one bushel of tea wheat on 120 rods of land, April 27, without manure the present year; planted with corn and potatoes and manured highly last year. Cradled Aug. 20, in a very dry time. Threshed with a machine, Nov. 8, and got a yield of 21½ bushels of very nice wheat.

I also sowed 5 pecks of oats on ¼ of an acre of land, manured highly last year, mowed them Aug. 21, rather green, threshed at the same time of wheat, 69 bushels of heavy oats. G.

Reading, Vt., Nov. 28, 1860.

##### TAN BARK—SODA ASH—LEACHED LIME.

Is tan good for composting? Will it be profitable to buy it?

Is soda ash and leached lime, such as is always found at the soap shops, good for manure, or for composting? Will it pay to buy it?

GEORGE E. MITCHELL.

Somerville, Nov., 1860.

REMARKS.—Tan bark would scarcely pay for hauling far. If nothing were paid for it, it would be economy to haul two or three miles when dry and light, and when other work would not press.

For remarks upon soda ash, see weekly *Farmer* for Oct. 27, and Monthly *Farmer* for Dec., page 548.

For the *New England Farmer*.

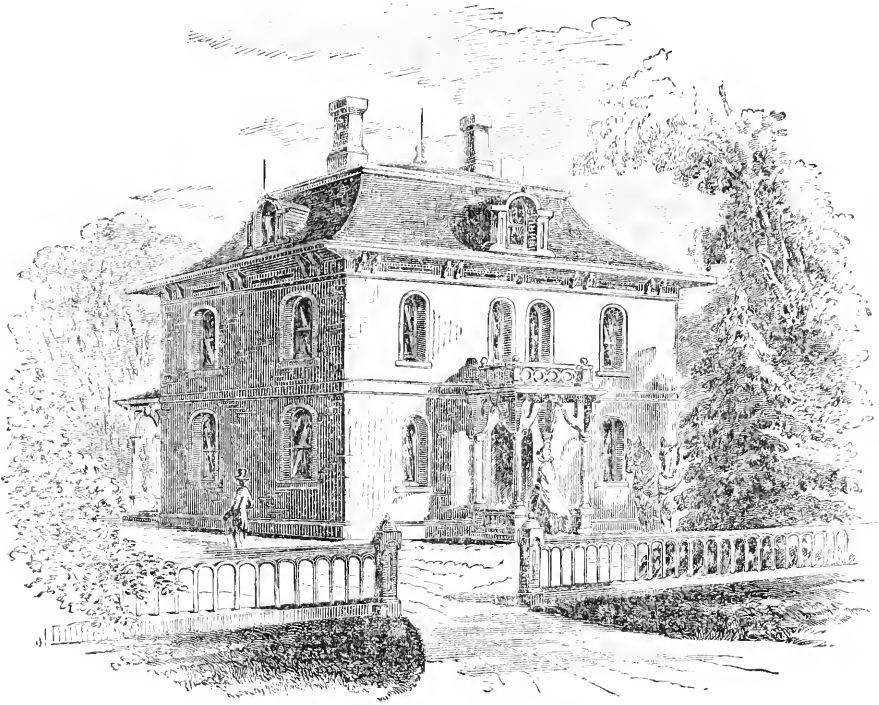
##### A NEW INSECT—PSOCUS VENOSUS.

MR. EDITOR:—The insect so accurately described by "S. A. N." in your last, belongs to the *Psocidae*, a small family of the order *Neuroptera*, consisting almost entirely of species that are beneficial or at least not injurious, to living vegetable substances. The description, which applies to the most common species in this part of the country, is that of the *Psocus venosus*, or the "veined Psocus" of Burmeister, so called from the prominent veins of its fore-wings. It occurs generally in large numbers on the trunks of various trees, old palings and mossy stones, and is supposed to feed upon the minute insects and animalcules, or the decaying vegetable matter which is found there. P. R. UHLER, Esq., of Baltimore, informs me that they are very numerous on the orange trees in Florida. Very little is distinctly known of their habits, and any information on that point will be acceptable.

FRANCIS G. SANBORN.

Andover, Nov. 28, 1860.

THE SECKEL.—This pear often succeeds poorly as a dwarf. The editor of the *Country Gentleman* has a dwarf Seckel that has done finely this year on his grounds, a strong clay loam. It has borne a full crop, most of the specimens of which have averaged in measurement *three inches long, and two and a half in diameter*. They would not be recognized as Seckels, being as large as medium sized Flemish Beauties; while in flavor they were equal to the Seckel grown on standards, with less of the musky perfume.



DESIGN FOR A SUBURBAN RESIDENCE.

BY GEORGE E. HARNEY, LYNN, MASS.

We present in the present number of the *Farmer*, the first of a series of twelve designs, now in preparation, one of which we propose to publish each month, during the coming year.

The design here given is of higher cost than those which will follow; as we intend the series to include only such plans as can be adopted by persons of moderate means. We have also another object in view, in the presentation of such designs. The tendency to extravagant expenditure is one which has rapidly increased in our suburban towns, and if not checked in some way, will lead in individual cases to deplorable results. We hope to show that for a moderate expense country and village residences can be erected, which will combine all the excellences of good taste, and harmony with the natural surroundings, to as great a degree, at least, as those structures which are covered without and within, with a profusion of elaborate and costly ornamentation.

The taste which Mr. Harney has displayed in the designs we have already given from his pencil, gives us confidence to believe that the design of the present series will be of great value, and we commend him to those of our readers who

may chance to need his professional services. We now leave him to speak for himself.

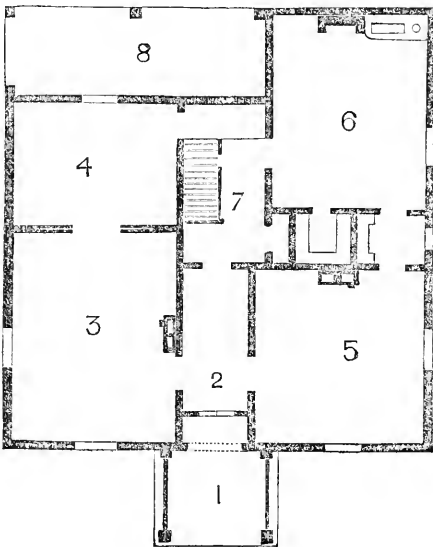
We have the pleasure of making our bow once more to the many readers of the *Farmer*, and of reopening our budget of designs for country buildings. We promise to make a monthly visit during this year, and to show as well as is in our power some of the varieties of which rural architecture is capable.

We have no idea of giving model designs, for they are oftener talked about than seen; what would be a model design for one family being ill arranged, and wholly unsuited for another; the nearest we can do will be to consult all tastes as well as we may be able, offering a few suggestions, and giving as great a variety of designs as possible; consulting, especially, the wants of people of moderate income; by this means we hope to be of some service to those about building for themselves farm-houses, or cottages, or barns, and to those about altering or repairing their old ones.

We shall commence with the village—the first design being particularly adapted for a suburban or village residence, and as such, is necessarily somewhat of a show house; hence we have provided a large parlor, dining-room and library, the kitchen being in the rear, and somewhat smaller, though provided with ample closet room.

The plan is nearly square, measuring 30 by 36

feet. The front door is recessed three feet, and opens into a vestibule, No. 2, six feet wide. On the left is the parlor, No. 3, 14 feet by 20, connecting by means of glazed folding-doors with the library, No. 4, 10 by 14 feet. On the right of the vestibule is the dining-room, No. 5, 14 feet by 16, and back of the dining-room is the kitchen, No. 6, 13 feet by 16. Between these two rooms is a passage containing cupboards for china. The kitchen is furnished with a large store-closet, and a sink, and pump. In order to economise room, we have provided but one staircase, and have placed it in a convenient but retired position in the rear hall, No. 7, separated from the vestibule by a glazed door. For sleeping accommodation we have provided four chambers, with closets, and a bathing-room on the second floor, and three chambers, and a clothing-room in the attics, making in all seven chambers; a large number for a house of this size.



*Construction and Cost.*—Built of wood, and covered with clapboards or sheathing, (either method being more appropriate for a dwelling of this style than the vertical boarding,) the roof covered with slate, and the interior plainly finished, this house would cost from 3800 dollars to 4000. The first story is ten feet high, and the second nine and a half.

**WINTER MULCHING.**—Our New England winters are trying to many of our plants, shrubs, and even trees, and some of them that are highly valued are annually lost, either by the intensity of the cold, or by the alternation of cold and heat. Bulbs, flowering shrubs, and even young trees, such as apple, pear, peach and apricot, are killed, after being tended with care for several years. This may be prevented, in many instances, by throwing around the base of the tree, and extending some two or three feet from it, any coarse litter, such as leaves, straw, fine chips from the dooryard, or even fine brush, such as birch, alder, or

what is better, pine, hemlock or spruce branches. Nothing, however, is so good as the cleanings of the horse stable where the animals are bedded with straw. This becomes saturated with their droppings, its fibre being crushed with their feet so as to fit it for a good absorbent.

When this is applied, the double purpose is served of protecting the plants and of fertilizing them by the matter which is washed out during the winter and spring rains. After the frost leaves the ground, the coarse remainder may be spaded in with the most decided advantage.

#### VENTILATION OF BARNS AND STABLES IN WINTER.

At this season the ventilation of stables should be well attended to, for on the approach of winter we naturally shut the doors and windows of stables, and should at the same time make provision for a fair amount of ventilation. Those who cannot be induced from kindness to the animal, to make the necessary arrangements for ventilation, should at least do so as a matter of self-interest. Every animal breathes atmosphere for the purpose of abstracting oxygen from it, and when instead of this, large amounts of sulphuretted hydrogen are present, arising from decomposition of feces, gaseous exudations from the surfaces of other bodies, etc., the ox cannot maintain his existence, except by the use of a greater amount of food. He will not increase in size while breathing an impure atmosphere, while the digestion of larger amounts of food by unnatural and forced processes, vitiates the quality of the atmosphere to be breathed, to a still greater extent. With milch cows the milk is lessened in quantity, and materially deteriorated in quality. With horses the want of ventilation produces lassitude and inferior muscular development; this is particularly true of young horses; indeed, the general effects on animals are such as are suffered by the inmates of badly ventilated almshouses, prisons, etc. In making the necessary arrangements for ventilation, great attention should be paid not to create strong drafts of air, so as to reduce the temperature. A tube brought down from above the ceiling, communicating with the outside atmosphere, will permit pure air to pass into the building, while an opening at the level of the ceiling, and another slightly lower than the heads of the animals, will permit the heated gases to rise, as well as the gases exuded from the animals, etc., to pass out, being replaced from the first named source. Such openings, if of proper size, will not materially cool the stable. It must be remembered that when stables are at too low a temperature, a larger amount of food is required to furnish the necessary animal heat. Stables should be supplied with disinfecting agents underlying the bedding, for the purpose of absorbing such gases as will come in contact with them. Charcoal dust, and many other substances which we have before enumerated, will answer this purpose. Slight dustings of Plaster of Paris are also useful, and these should find their way to the compost heap in time, and in the very best condition as food for plants.—*Working Farmer.*

*For the New England Farmer.*

**SOME REMARKABLE FACTS IN RELATION TO CLIMATE.**

COMPILED FROM MEYER FOR THE N. E. FARMER.

Alexander Humboldt connected those places which possess an equal degree of heat, by lines which he called *Isothermal*, from the Greek words, *isos*, (equal,) and *therme*, (heat)—that is, lines of equal heat. As the mean temperature of different places are exceedingly various, there must also be various isothermal lines, which are always designated by the mean temperature of the place. Observations have shown that these isothermal lines by no means run parallel to the parallels of latitude, but incline towards them, particularly in the higher latitudes, but less near the equator, where they pretty nearly coincide with the parallels of latitude.

In the northern hemisphere of the globe, all the eastern coasts of continents and isolated masses of land are colder than the western coasts of the same latitude. Thousands of observations have confirmed this phenomenon, although its explanation is not yet quite found out, and, therefore, the isothermal lines frequently rise and fall. For example, Ireland, England and Belgium are countries which have the same isothermal line; but on the eastern coast of Asia, it passes just above Peking, which is in the same latitude as Naples. Canada is further south than Paris, and it has the temperature of Drontheim. The trees which grow in New York—the latitude of Naples—flower at the same time as they do at Upsal.

The isothermal lines do not run in straight lines, but in curves. The isothermal lines rise in their course, from the eastern coast of America towards Western Europe, but they sink again towards the south in the interior of the continent, and that so quickly, that Scotland lies in the same isothermal line as Poland, and England as Hungary. We find, however, that it is only near the coast that they sink so rapidly, and that it is in consequence of the great difference which was previously shown to exist between coast and continental climates of the same latitudes, it is probable that it does not take place in the interior of large continents, but that there the isothermal lines run in a straight direction.

In the interior of the New, as well as of the Old World, the isothermal lines incline towards the south. Thus if we go towards the pole in the interior of the two great continents, we find that the temperature decreases much more rapidly than in the interjacent seas. It is well known that for many years, attempts have been made to penetrate the frozen Arctic seas. By Behring's straits, where the voyager is constantly near the great continent, he has penetrated only a little further than 70° north latitude; by sailing along the American coast through Baffin's Bay, he has reached the 77th degree north latitude; while in the open sea, in the meridians of Norway and Sweden, it is easy to sail to Spitzbergen, which lies above 81° north latitude. *We thus learn that the pole is not the coldest point of the earth, but that there are two poles of cold, one in the interior of each continent.*

But we have all seen that the mean temperature of the whole year has not so great an influence on the vegetation as the mean temperature of the

different seasons, and therefore, it is still more important to know the places which, though in different latitudes, possess the same summer or winter temperature. Baron Humboldt was the first also who paid attention to this principle. He named the lines which connect places of the same mean winter temperature, *isochimenal* lines, (from *ochiemon*, cold,) and those which connect places of the same mean summer temperature, *isothermal* lines, (from *theros*, summer.)

The isochimenal lines in the interior of continents bend considerably towards the south, which is principally obvious near the Atlantic, where the curves, when they come near the coast, make a sudden turn towards the north. This shows the greater coldness of the winter in the interior, compared with the coast of the same degree of latitude.

The course of the isothermal lines that bend towards the north is directly opposite that of the isochimenal, for the summers on the coast are colder than the summers in the interior of the same degree of latitude, and in a great many cases, they are colder near the coast than in the interior, in a much higher latitude. The summers of Paris and Moscow are nearly equal, though the winters of Paris are mild, and those of Moscow almost insupportable.

Differences in the mean temperature of the eastern and western coasts have already been alluded to. There are also equal differences in the summers and winters. While the inhabitants of Quebec in winter complain of the piercing cold, the natives of the same latitude on the western coast of America go with scarcely any clothing.

The importance of the difference between the climates of the east and west coasts of North America to the distribution of vegetation was early observed. Burton has remarked that the plants of North America grow on the west coasts in higher latitudes than on the east, and the eastern coasts of Hudson's Bay are desert and herbless, while on the western coasts there is a tolerably rich vegetation.

The difference between the climates of the east and west coasts of continents and islands has also been observed in the southern hemisphere—but here the principle is reversed—for the west coasts are colder than the east, while in the northern hemisphere the east coasts are the colder. South America shows very decidedly this arrangement of a warm eastern coast, and a cold western coast. Various attempts have been made to explain the proportionably very cold climate of the western coasts of South America, and many causes have been assigned which would indeed diminish the heat there. The chief cause is evidently the same which operates in the opposite manner in the northern hemisphere.

The successful cultivation of certain plants does not depend so much on the mean annual temperature as on the temperature of summer. Thus, Indian corn cannot be raised in Great Britain, though it possesses a higher mean temperature than New England, but the hotter summers of New England are more favorable to it than the longer and colder summers of England. The same remark is true of annuals as a general rule, they are governed by isothermal lines, flourishing equally well in different latitudes, if they have equally hot summers. Thus the Californian annuals suc-



ceed well in New England, but not in Great Britain. The distribution of perennials, on the contrary, is regulated by isothermal lines—that is, by the mean temperature of the year. Lapland and St. Bernard have the same mean annual temperature, but the monks of St. Bernard envy the Laplanders their fine climate, because their summer is warmer. There are perennials at St. Bernard, which the winters of Lapland would kill, but the products of the gardens in Lapland are superior to those of St. Bernard.

#### “I SHALL KNOW HER AGAIN.”

BY B. F. TAYLOR.

O, have you not seen, on some morning in June,  
When the flowers were in tears, and the forests in tune,  
When the billows of dawn broke bright on the air,  
On the breast of the brightest some star clinging there?  
Some sentinel star, not yet ready to set—  
Forgetting to wane, and watching there yet?  
How you gazed on that vision of beauty awhile;  
How it wavered till won by the light of God's smile;  
How it passed through the portals of pearl like a bride  
How it paled as it passed, and the morning star died!  
The sky was all blushes, the earth was all bliss,  
And the prayer of your heart, “be my ending like this

So my beautiful May passed away from life's even;  
So the blush of her being was blended with heaven;  
So the bird of my bosom fluttered up to the dawn—  
A window was open—my darling was gone!  
A truant from tears, from sorrow and sin—  
For the angel on watch took the wanderer in!  
But when I shall hear the new song that she sings,  
I shall know her again, notwithstanding her wings,  
By those eyes full of heaven, by the light on her hair,  
And the smile she wore here she will surely wear there!

#### POSTS---TIME FOR CUTTING TIMBER.

MR. BROWN:—You gave a method for preserving posts, some time ago, which I unfortunately have lost. May I ask a repetition of it? Is it expensive?

Which will last the longer in the ground, oak, or chestnut? Does it make any difference which end is set in the ground? What is the best time for cutting?  
J.

South Hadley, Nov., 1860.

REMARKS.—“One pound of blue vitriol (sulphuric acid and copper) to twenty quarts of water. Dissolve the vitriol with boiling water, and then add the remainder. The end of the stick is then dipped into the solution, and left to stand four or five days; for shingles three or four days will answer, and for posts six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, for the reason that any barrel will be shrunk by the operation so as to leak. Instead of expanding an old cask, as other liquids do, this shrinks them.”

This preparation is not an expensive one.

We do not know whether chestnut or oak would be the most durable. Some one who has had experience will be kind enough to reply.

It is a pretty generally received theory that inverted posts will last longer than those not in-

verted—but this theory is controverted with some force.

September is thought by many to be a good time to cut posts, or any wood to be used as timber. Mr. E. J. YOUNG sent a communication to the *Ohio Farmer* in 1853, in which he says *June* or *July* is the proper time. He adds, that “the time settled by tradition appears to be the month of *February*. Perhaps the reason is, the winter is the most convenient season for doing such work, there being more leisure time then than in summer; and because it has generally been done at that time, it is supposed to be the right one. But if any one will be at the trouble of cutting a tree in the winter or spring, and one in *June* or *July*, and making them into rails, and then see which will last longest, he will not need any other argument to convince him that tradition is at fault in this case at least.”

We believe in Mr. YOUNG's views on this matter; they are consistent with the nature of trees. The rule should be to cut a tree as little as possible for any purpose when it is full of sap in activity. By the latter part of *June*, the principal portion of the sap has left the trunk of the tree, and gone to its extremities, where it has been elaborated by the leaves into suitable food for bud, twig, and a new layer of wood to increase the diameter of the trunk. The heart of the tree contains then little or no sap, and the circles that surround it, called sap wood, have but a small quantity compared with what they held in *April* or *May*. At this period, like some other operations in nature, the bark yields to the downward pressure of the elaborated sap, and makes room for its deposition. In some cases, where the soil is rich, and the growth of the tree luxuriant, the bark will split through the entire length of a young apple tree, and with a width of a fourth of an inch; and, although the season then has passed, in which trees are usually peeled, there will be no difficulty in removing the bark from large trees, when the timber will be found seasoning rapidly, and becomes exceedingly compact and hard.

Timber prepared in this manner, we are inclined to believe, will last much longer than that cut at any other season of the year.

An excellent article on this subject was prepared by the editor of the *Country Gentleman* in 1854. In answer to the question, “What time shall timber be cut?” it replies, “Never in winter, but always in summer. It should be cut during the most rapid season of growth, and while that season is drawing to a close.”

“Experienced tree-propagators have found that much earlier than this, the juices of the tree are in too thin or liquid a state to form a good adhesion between the bud and the peeled surface. From the moment that the bark separates freely

from the wood, these juices continue to thicken, until growth ceases altogether, and the new wood is completely formed; and when this new wood is in the state of a thick paste or cement, then is the time that the bud will adhere most perfectly. This is the period when the bark may be peeled from a tree without destroying its vitality. And this is the time for cutting timber. Early in spring, the tree is full of sap, which is little else than pure water, and which has been gradually accumulating through winter by the absorption of the roots, with no outlet for its escape, as there is in summer through myriads of leaves. While the tree is thus replete with water, it is in the worst condition to be cut. But towards mid-summer, when a portion of this water has passed off through the leaves, and the rest has been much thickened by conversion into material for wood, the case is very different; for while the watery sap promotes only decay, the thickened juices soon dry and harden, and assist in the preservation of the wood."

The editor states that his opinions are corroborated by those of Mr. ISAAC HATHAWAY, of Farmington, Ontario county, N. Y., a man of great experience in the preparation and use of timber. His opinion is, that timber cut at the proper time in summer will last *three* times as long as when felled in winter!

Hickory contains a sweet sap, sweeter, perhaps, than that of the maple; insects instinctively turn to it as a suitable place to deposit their eggs and for hatching their young, and we have seen axe helms and large quantities of the finest-looking ox-bows rejected, in consequence of being perforated by worms. The term applied to such timber is *powder-post*. When in this condition, it becomes utterly valueless for any purposes where strength is required. Persons who deal in such timber are obliged to keep it in cellars or damp rooms, and darkened, so as to prevent the entrance of the insect that deposits the egg pregnant with so much mischief.

If this timber were cut in June, peeled at once and properly housed, it would probably become so hard before the appearance of the insect in the following spring, as to resist all their efforts to deposit their eggs in it. The question of our correspondent—"What is the best time to cut timber?" is an important one; the true time ought to be ascertained, beyond all doubt, and then made public.

NATURE FROM THE WATER.—A person should go out upon the water on a fine day to a short distance from a beautiful coast, if he would see nature really smile. Never does she look so joyous as when the waves are rippling gently, and the scene receives life and animation here and there from the glancing transit of a row-boat, and

the quieter motion of a few small vessels. But the land must be well in sight; not only for its sake, but because the vastness and awfulness of a mere sea-view would ill sort with the other parts of the gay and glittering prospect.—*Guesses at Truth.*

#### HOW A FLY HOLDS ON.

I have here inclosed a small window fly in the live box of a microscope, that you may examine the structure of its feet as it presses them against the glass cover; and thus not only get a glimpse of an exquisitely formed structure, but acquire some correct ideas on the question of how a fly is able to defy all the laws of physics, and to walk jauntily about on the under surface of polished bodies, such as glass, without falling, or apparently the fear of falling. And a personal examination is the more desirable because of the hasty and erroneous notions that have been promulgated on the matter, and that are constantly disseminated by a herd of popular compilers, who profess to teach science by gathering up and retailing the opinions of others, often without the slightest knowledge whether what they are reporting is true or false.

The customary explanation has been that given by Derham in his "Physico-theology," that divers flies, and other insects, besides their sharp, hooked nails, have also skinny palms to their feet, to enable them to stick to glass, and other smooth bodies by means of the pressure of the atmosphere, after the manner as I have seen boys carry heavy stones with only a wet piece of leather slapped on top of a stone." Bingley, citing this opinion, adds that they are able easily to overcome the pressure of air "in warm weather, when they are brisk and alert; but toward the end of the year this resistance becomes too mighty for their diminished strength; and we see flies laboring along, and lugging their feet on windows as if they stuck fast to the glass; and it is with the utmost difficulty they can draw one foot after another, and disengage their hollow cups from the slippery surface."

But long ago another solution was proposed, for Hooke, one of the earliest microscopic observers, described the two palms, pattens, or soles, (as he calls the *pulcilla*.) as "beset underneath with small bristles or tenters, like the wire teeth of a card for working wool, which, having a contrary direction to the claws, and both pulling different ways, if there be any irregularity or yielding in the surface of a body, enable the fly to suspend itself very firmly." He supposed that the most perfectly polished glass presented such irregularities, and that it was moreover always covered with a "smoky tarnish," into which the hairs of the foot penetrated.

The "smoky tarnish" is altogether gratuitous; and Mr. Blackwell has exploded the idea of atmospheric pressure; for he found that flies could walk up the interior of an exhausted air-pump. He had explained their ability to climb up vertical polished bodies by the mechanical action of the minute hairs of the interior surface of the palms; but further experiments having showed him that flies cannot walk up glass which is made moist by breathing on it, or which is thinly coated with oil or flour, he was led to the conclusion

that these hairs are, in fact, tubular, and excrete a viscid fluid, by means of which they adhere to dry polished surfaces; and on close inspection with an adequate magnifying power, he was always able to discover traces of this adhesive material on the track on glass both of flies, and various other insects furnished with *puvilla*, and of those spiders which possess a similar faculty. —*Gosse's Evenings at the Microscope.*

For the New England Farmer.

#### POTATO BLIGHT AND ROT IS CAUSED BY INSECTS.

MR. EDITOR:—In your paper of Nov. 24th appears from Mr. Goldsbury, of Warwick, another attempt to make your readers believe his “seven reasons” settle the question that insects cannot cause the potato blight and rot. He also wishes them to believe that his “logical reasons” of March 3d have become, (Nov. 24th,) real “facts”—“reasons logical,” alias “facts.” He says my last communication furnishes “no new facts.” But that I “persist in asserting and reasserting the old ones.” I shall hold fast to my facts, my ocular demonstration. They are more reliable than “logical reasons.”

And furthermore, I am taunted with being “first in my own cause,” that is, for having disclosed to the public the result of my microscopic researches. And, because *new to him*, they amount to nothing—they are a “deception.” Who shall divulge and make known the result of research and the development of *new discoveries*, but the explorer or discoverer himself? Did Columbus keep silent? Were Arkwright, Fulton and Whitney dumb? Did these men make no explanations? Was Franklin’s tongue and pen bottled and sealed? Have not Reaumur, Kirby and Spence and Dr. Harris written out their entomological researches? Must I keep silent after making new discoveries, entomological and embryological, *undescribed by them*? And must I be told by Mr. Goldsbury, *ignorant* (admitted by his own confession,) of the use of “microscopic glasses,” that he as “A neighbor cometh to search me?”

His *perfect ignorance* of microscopy and what it clearly reveals of God’s mysterious works, disqualifies him, (now, at least,) to unfold and describe the secrets of His power, embryologically viewed, and pass judgment upon my new discoveries. Must scientific research be measured and considered ended, when the tomb closed over the remains of Reaumur, Harris and others? Can no one else make entomological researches and developments, and describe what the microscope reveals? Let Mr. Goldsbury take the beam from his own eye before he attempts to “search” and judge others.

Mr. Goldsbury’s memory appears very poor. He forgets that March 3 he said that “Insects do not cause the rot for the following reasons.” Seven reasons are written out, and he follows by saying these are my “reasons for disbelief.” November 24th he denies what he then said, and declares they “are not reasons or logic” but “facts.” And he changes the name of “reasons” by an *alias* to the name of “facts.” In another instance his memory fails him, or he “argues in a circle.”

See what he says in your paper, March 3d: “It is believed the cause of the rot is unknown.” Again in the same communication he says: “I repeat therefore that the cause still remains unknown.” See what he says in a letter to me, March 16th: “It was not my *object* to assert in the *N. E. Farmer* that the cause of rot was unknown.” He did “assert” it, and what was his “object” of “repeating” it, and then denying it, and that it was not his “object to assert” it, and “repeat” it? In his of November 24th he is particular to say that he wants “no sophistry, no dodging, no quibbling, no arguing in a circle.” I believe my statements are expressed with directness and frankness, and supported by secondary testimony, named to him, and of high, unquestionable authority. I have searched out and proved by ocular demonstrations, that insects do cause the rot. Mr. Goldsbury must refute my facts, and disprove the testimony which supports these facts before he can make many converts. I will leave all for the judgment of your readers. They can decide whether I have been frank or not, and who has “quibbled and dodged.” I have asked him to refute my facts—not my “reasons and logic,” but he fails to give one word in reply, or produce one witness, or cite one authority, or describe one research of his own, to disprove the fact of the presence of insects, or their depredation upon and infection of the potato plant and tuber. He again repeats his old assertion that “decayed potatoes were exhibited.” Your readers must remember what I said in my last, that his assertion on this subject was “*positively untrue*.” I then explained the condition of the vines and tubers which the witnesses examined. If Mr. Goldsbury does not *believe the truth*, he may disbelieve. I am satisfied that *truth* will prevail, and that the public will decide who is right and who wrong. Mr. Goldsbury says the “knowing farmers, by observation, decide against insects as the cause of the rot.” I have asked him to furnish the result of the investigations and experiments of his “knowing farmers;” but this he fails to do. I have asked him where the insects came from on the “*undecayed* potato in Mr. Flint’s corked bottle?” But he fails to answer this question. Now let me ask him one more, upon this same subject. Were the insects on the growing vines and sprouts and undecayed tubers, the “consequence of decay,” or did these insects appear upon the sprouts and vines, being warmed into life from the inherent, hibernated embryological condition of the tuber, as it was, exactly, when placed in Mr. Flint’s possession?

I will thank Mr. Goldsbury to answer these questions, that the public may have a true definition of his meaning of his word “consequence.” He will doubtless repeat his old fallacy, that “insects are the consequence of decay.” But this I unhesitatingly deny. Undisputed authority refutes every assertion which he has made in this particular. Dr. Harris, on *Insects*, second Ed., page 3, declares that “Insects never spontaneously germinate from putrid animal or vegetable matter.” Prof. Agassiz and others admit this as a fact, and support this authority. Is not this authority sufficient to convince Mr. Goldsbury, or your readers at least, that he has all the while been arguing against *facts*—*stubborn facts*, and *ocular demonstration* which he cannot refute.

If he now thinks he is correct in his assertion about "consequence and concomitant," let him bring forward his facts, ocular developments, or authority, to disprove the result of investigation as declared by Mr. Flint, Smithsonian Institute, Congressional Committee, U. S. Patent Office, Dr. Harris and Prof. Agassiz.

Baltimore, Dec. 1, 1860. LYMAN REED.

REMARKS.—The subject of the cause and the cure of the potato rot has been carefully discussed in our columns,—its importance inducing us to give it an extended space. Under the present circumstances, we can see nothing to be gained by continuing it, but whenever any new and plausible theory is introduced, we shall be glad to hear from our correspondents again.

*For the New England Farmer.*

#### "FRUITS AND THEIR CULTURE."

The *Farmer* of Nov. 24 contains some remarks of John B. Moore, Esq., before the Concord Farmers' Club. These remarks are in the main to the point; but the assertion that "nine-tenths" of the pear trees planted within the last fifteen years "have failed," I look upon as one of those extravagances in which farmers are too apt to indulge, when, from some local cause, they themselves happen to have failed in some favorite enterprise. In the course of the last fifteen years, I have planted about two hundred pear trees. They have been purchased indiscriminately, almost, at auction and in nurseries, whenever I could find trees *cheap*. Some of them were of foreign growth, and some native. Many of them had been a long time out of the ground, and were in bad order. They embrace from sixty to seventy different varieties. And yet, out of the whole lot, I have not lost half a dozen trees.

I beg you will not understand me as recommending the purchase of *cheap* trees. I believe they are the dearest in the end. My course had been guided by a desire to *experiment* upon different varieties—to test their adaptation to the soil of my garden, and to the varying climate of our seasons. And here permit me to confess, I am but very little wiser now than I was ten or fifteen years ago. I have learned something, to be sure, of the nature and habits of the pear tree, in its different varieties. I can tell one kind from another, in most cases, by the bark, the leaves, or the form of growth. But I *cannot* tell to-day which of fifty different kinds I would recommend for cultivation, (leaving out of the account some three or four standard varieties, such as the Bartlett, Bloodgood, and Duchess de Angouleme.)

I had, a few years ago, a high opinion of that noble old pear, Beurre Diel. I procured some eight or ten handsome trees of that variety on pear stocks. Their growth was all I could desire, both in thriftiness and beauty of shape. And yet, although most of them have fruited for several years, the quality has usually been insipid and tasteless, while two or three scraggy little trees of the same variety, on quince stocks, have borne fruit of excellent quality. I had about made up my mind, notwithstanding the beauty of these pear stock Beurre Diels, to engraft them all with

some other variety; but fortunately, as I think, I last Spring decided on giving them one year more of grace. One of these trees, which has apparently attained nearly its growth, as it threw out no new shoots, gave me the past season a very excellent quality of fruit, while those, which kept on growing bore fruit of the old insipid kind, not worth the gathering. From this I infer that some varieties of pears must have time to mature the tree before they can mature the fruit, and that it will not do to condemn a tree on account of the quality of the first, second, or even third year's product.

Last year, several trees (on quince,) of the Beurre de Amalis variety produced fruit of a fine quality—almost, if not quite first rate. This year the same variety produced a very large quantity of large and handsome fruit, but if not exactly like "apples of Sodom," which "please the eye, but turn to ashes on the lip," it was so insipid and tasteless as hardly to be worth the gathering. And by the way, I think the extreme moisture of the past season, while it served to develop very beautiful pears, had an unfavorable effect upon their quality generally. For instance, I had Duchess pears weighing three quarters of a pound, and beautiful to look at as the aforesaid "apples of Sodom" in the most exalted state of poetic license; and yet, the eating of them hardly paid for the paring. The only exceptions that I know, are the varieties known as L'Angelier and Sovereign d'Ete, the fruit of which proved better this season than I ever knew it before.

In the *Farmer* of December 8, you speak of Dearborn's Seedling as a pear of "first quality." I have a tree of that variety which bears full crops every year, and yet I could never pronounce it a pear of first, or even second rate quality. Last year, the fruit came pretty well up to the standard of a second rate fruit—perhaps nearly up to the Bloodgood. But the present season the fruit has not been good enough to give away. Still, from its great productiveness, and the beautiful color and form of the fruit, I would recommend all amateurs to have one tree of this variety. For a market fruit, I have no doubt it is one of the most profitable.

The general conclusion to which I have arrived, from my comparatively brief experience in the pear culture, as before indicated, is, that very little dependence can be placed on a large portion of the different varieties, until the trees, particularly on pear stocks, have attained a somewhat mature growth; and that, even then, the fruit becomes so modified by the circumstances of season, soil and position, it is not safe to judge except by the experience of a succession of seasons. The pear culture, I have no doubt, may be made immensely profitable; but to succeed in it requires time, patience, close observation, and a soil adapted to its many and somewhat diverse peculiarities. At any rate, the culture of fruit, properly appreciated, is a soul-ennobling school, in which, though there may be hard lessons in a pecuniary sense, there are others of wisdom, and goodness and happiness.

E. C. P.

*Somerville, Mass.*

REMARKS.—We are always pleased and instructed by the communications of "E. C. P.,"

and hope he will write oftener. He tinges the practical and profitable with a genuine sentiment that reaches above the pocket, and gives rural employments the dignity and grace to which they certainly are entitled.

#### A NEW FARM SURVEY.

We have recently seen a plan of an estate on the sea-shore in Essex County, which represents the ground in a manner very interesting to all cultivators of the soil. The farm has a very uneven surface, with a long shore line, a small portion of which is beach, and the remainder formed of precipitous and ragged rocks. The inequalities of the surface are represented on the plan by figures, showing the height above mean low water. The beach is represented by very fine stippling with a pen, and the rocky shore is beautifully shown by elaborate pen work. Trigonometrical measurements are made to known points established by the U. S. Coast Survey, by means of which the distance in feet from the State House in Boston is obtained—and also the true North and South, which is shown upon the plan by fine lines running across it at intervals of 200 feet, and crossed by other fine lines at equal intervals, running East and West. From one of the first named lines, a short line diverging the right number of degrees, points to the magnetic North.

The drives, walks, buildings, (large and small,) yards, hedges, &c., are accurately shown. But the subject of most interest to farmers, and to which we wish, by this article, to call their attention, is *a survey of the ground beneath the surface, exposed to the eye*, of that farm under the farm we usually cultivate, for the purpose of finding its character, and the influence it may exert on the crops. A general mineral analysis is given of Hill-top, Middle-ground and Valley, by which may be seen what mechanical agencies and what kinds of manure or top-dressings may probably be used on the land to profit. This survey is shown on the plan by light tints or washes of different colors, which add very much to the beauty of the whole. The practical value of such surveys is destined, we believe, to be very great, and we rejoice to see this first effort at a kind of surveying which will no doubt be, in time, much employed by intelligent farmers.

This is the first instance of the kind that has come to our knowledge, and we find pleasure in stating that the work was done by our skilful and industrious young friends, Messrs. SHEDD & EDSON, of Boston. We should be glad to give the name of the enterprising and progressive gentleman who is the proprietor of the estate, and who has caused this work to be done, if we were at liberty to do so.

*For the New England Farmer.*

#### CURING CORN---DURHAM BULL.

MR. EDITOR :—Allow me to recommend the following for the benefit of those who, like myself, till the soil for a living. It is well known to all farmers that we quite frequently have very unfavorable seasons for curing corn after it is harvested. This autumn has been one of that character, and the general complaint is, that corn is very much damaged by the prevalence of damp weather. To avoid corn being thus damaged, allow me to state my experience, or rather the way in which I have for several years past saved my corn in a perfectly sound state.

All persons will acknowledge the importance of having their corn cured before freezing weather comes on. I have corn raised this year and husked the last of September, fore part of October, that rattles like old corn, and though much of my corn was more or less mouldy in the stalk, it is all now bright and doing well, not a mouldy ear to be seen, though much of it lies eighteen inches thick on the floor.

I have a building sixteen feet square attached to my barn, which I occupy as a shed with a loft above, having a floor made of narrow slats from two to four inches wide, and one inch apart, so that air can circulate freely up through the corn; also slats on two sides of the building, an inch apart, so that there is plenty of air under and over the corn. I should not be afraid to spread my corn two or three feet thick as I husk it. You will see that a very important point is gained by having corn have plenty of air underneath.

I have a very fine Durham bull calf, now 10½ months old; his girth is five feet eight inches. At nine months old he weighed 700 pounds, and by weighing from time to time, I find he has gained from three to four pounds per day. I suppose he will now weigh 850 pounds, and I expect to make him weigh, at one year old, 1000 pounds. If I do, I will let you know.

As I have my pen in hand, allow me to recommend a plan which I have in my mind for the arrangement of a barn with a cellar, and with a cistern for watering cattle, a sketch of which I send you.

SPENCER BYINGTON.

*Stockbridge, Dec., 1860.*

REMARKS.—We are obliged to our correspondent for the sketch of a barn accompanying the above note. It has some original points which we wish to examine, and if we find they can be made available with other general accommodations of the barn, we may have the plan engraved. We are glad to find attention turned to this important subject, as we believe great improvement may yet be made in the internal arrangement of barns.

KING PUMPKIN.—The King of the Pumpkins for the year of grace 1860 was inaugurated at the Halle in Paris, on the 24th ult. It measures ten feet four inches in circumference, and weighs 319 pounds. It was carried about the market with this inscription: "The King of the Pumpkins of 1860, born in Touraine on the 6th of April, gathered September 20th, 1860."

### AGRICULTURAL MASS MEETINGS

Now is the time for mental action and investigation. Let not this be a "winter of discontent," but one of earnest, profitable progress. Let us come together in council and discuss our personal interests. The merchants have their "Chamber of Commerce" and "Corn Exchange,"—the Banks their "Associations," and the brokers their "Board," the mechanics their "Institute," and the lawyers, doctors, clergymen and politicians their "Conventions" and "Resolutions." Let us profit by their examples, meet in council in various parts of the State and do something to promote the noble Art of Agriculture, and at the same time increase the products of the soil and elevate the homes of our land.

Who will take the initiatory steps in Old Concord? Will Dr. BARTLETT, with his well known ability and zeal, sound the tocsin in Chelmsford, and Gov. BOUTWELL and Mr. BANCROFT in Groton? Will Mr. PETERS and Dr. BURNETT see that old Worcester is aroused? Gov. CUSHMAN and Mr. GRENNELL, of Greenfield, kindle a flame in Franklin? Mr. DAVIS, of Plymouth, in his county, and so on throughout the State? What say you, brother farmers? Let us have a response, and see what can be done.

POINTS OF MERIT IN A FARM-HORSE.—Mr. Strawn, the well known stock-farmer of Illinois, states the points of a horse to be—a large eye, bay color, with heavy black mane and tail, round body, large ham-string, short back, long belly, fifteen or sixteen hands in height, and weighing about 1200 pounds.

### LADIES' DEPARTMENT.

#### PRESERVATION OF THE HAIR.

It is a melancholy fact, that not one lady in a hundred, in the United States, has fine or luxuriant hair. Everybody is complaining of the loss of "woman's chief glory," and wondering why on earth pomatums and hair-washes, oils and restoratives, fail to bring it back, "as per advertisement." We suspect there would be a general exclamation of incredulity among the gentlemen, did they but know what an immense proportion of the tastefully arranged tresses they behold on fair heads, *grew* on somebody else's pate. Almost every one wears a "roll" or "braid," which comes from the hair-dresser's, and costs from five to twenty dollars. It is disposed with consummate skill—you cannot distinguish the sly hair-pins that fasten on the false decoration, yet there it is, a tacit confession that nature gives way to art.

"My hair *will* keep coming out, although I take the greatest pains with it," sighs the fashionable belle. "I don't see what the trouble is."

There are several "troubles;" first and foremost among which is the expensive "roll" itself.

Any hair-dresser will tell you that the weight and pressure of this heavy mass of false hair with the heat it induces around the head, is highly prejudicial to the growth and welfare of the real hair. If you must wear a roll, let it be as seldom as possible. Whenever you can dispense with it, do so. Let its place be supplied as often as practicable with a light head-dress, secured with a few hair-pins as will support it. These last are fearfully destructive to the hair, cutting and wearing it to an incredible degree. Gutta-percha hair pins are the best, and even these should be limited in number.

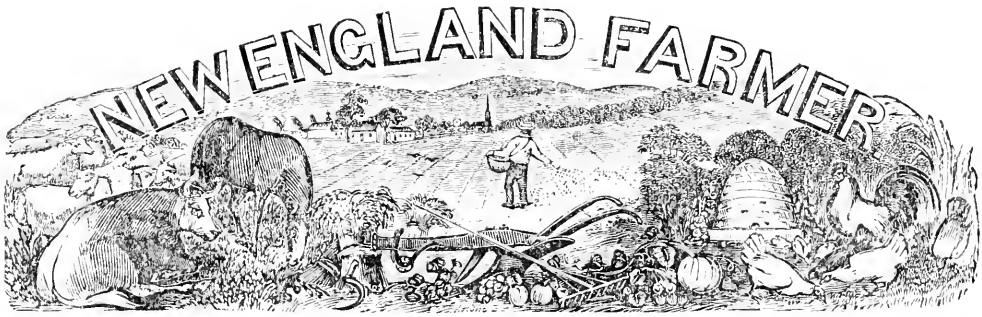
All sorts of pomatums, oils and preparations had better be let alone. There is no use in soaking the skin of the head in grease, as is often done. If the hair is harsh and dry, castor oil perfumed is the best application, but the scalp itself should not be saturated. Washing the head thoroughly in fair water, once a week, will be found very beneficial.

Bodily health is almost essential to the natural growth of the hair. Nothing indicates the progress of sickness so plainly as the dry, dead look of the hair, and if our American ladies want lovely, luxuriant tresses, they must avoid heated rooms, late hours and fashionable dissipation. There is no help for it—nature will avenge any infringement on her laws, and the sooner we become thoroughly convinced of this fact, the better for us.

There is no ornament half so becoming to a female face, as thick, beautiful hair. It needs no decoration beyond a natural flower or two. Nets, diamond sprays, tiaras of pearl, are useless—it is like "painting the lily" to wear them. Remember this, girls, and take every precaution to preserve this exquisite ornament of nature's manufacture. Once gone, it is hard to coax back again.—*Life Illustrated.*

FURS ON BEAUTIFUL WOMEN.—There is nothing that looks so rich, easy and comfortable as a beautiful piece of fur wrapped around a beautiful piece of womanhood. Furs, like gold and silver, have always been highly estimated by the human family and "the rest of mankind." Rich furs were for many ages used as gifts from one prince to another—nobody less than a prince being allowed to wear them. The sumptuary laws which once existed with regard to the wearing of furs, were at once numerous and stringent. In the days of Henry VII. it was two years' imprisonment for any person below a baronet to wear a piece of ermine "as large as your hand." Those absurd laws, however, have all been repealed, so that a person at the present time can go his length on furs—the only limit to his taste being his pocket-book and creditors.

WOMAN'S HOPES.—In early youth, perhaps they said to themselves, "I shall be happy when I have a husband to love me best of all;" then when the husband is too careless, "My child will comfort me;" then through the mother's watching and toil, "My child will repay me when it grows up." And at last, after the long journey of years has been wearily travelled through, the mother's heart is weighed down by a heavier burden, and no hope remains but the grave.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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CALENDAR FOR FEBRUARY.

The "common people" have become uncommon ;  
A few remain, just here and there, the rest  
Are polished and refined ; child, man and woman,  
All imitate the manners of the best ;  
Picking up, sometimes, good things from their betters,  
As they have done from them. Then they have books ;  
As 'twas designed they should, when taught their letters,  
And nature's self befriends their very looks ;  
And all this must, and all this ought to be—  
The only use of eyes, I know of, is—to see.



**F**EBRUARY is not the month of roses, but roses would be rare in June were it not for the healthful influences of February. Though the winds howl, and snow and sleet pelt the traveller and weary the beast, or keep us at home, this month can no better be spared than balmy June or fervid July.— Covered with its warm wrapper of snow, the earth is reposing like the sleeping giant, gathering vigor for future harvests. The trees are leafless and thin, allowing the winds to pass through their branches unimpeded in their progress, while their roots lie inactive in the soil, or stimulated by an early thaw and the life-giving sun, as by an electric touch, pass into temporary activity to become dormant again when Borean winds sweep over the fields and clouded skies shut out the invigorating solar rays.

Sometimes February is the severest of the winter months, and it usually has a period of the

most intense cold of the season. We may not feel its power so keenly as when winter first asserts its sway, because we have become more inured to it, and our winter arrangements are more complete. When this period has been properly provided for, it may be as comfortable as that of any other season, and crowded with contentment and substantial progress.

No profession in life, it seems to us, affords better opportunities for social intercourse, for friendly visits and observation of each others' modes of agricultural labor, than that of the farmer—no one is more favorable to study and to an investigation of the laws which affect or control the materials with which he has to deal.

In the learned professions, as they are called, where it is necessary that the mind be active during the day, the evening hours must be devoted to rest or recreation, or the mind soon loses its balance and falls into decay. In the mechanical arts, men are accustomed to labor a part or all the evening, and thus little time is left to them at any season of the year for uninterrupted study. It is not so with the farmer. If he plans his affairs judiciously, and exercises sound wisdom with regard to his personal labor—neither being slothful in business nor exacting too much from his physical powers—he will find himself sufficiently fresh to devote the long evenings in February with a keen relish for literary pursuits. Steadily occupying those evenings through a single winter, with well-directed effort and a subject before him that shall arouse and call forth all the energies of his mind, the young farmer will be surprised at the progress he has made, untrammelled by the arbitrary rules of others.

Let us, for a moment, look at the farmer as one of a class. He has a farm, and holds its title deeds, and there is no earthly power to wrest it from him without his consent. He knows that the earth will generously return to him an ample reward for his labor, and that with common in-

dustry and prudence, himself and those dependent upon him will be fed from the bountiful soil, and therefore no gaunt spectres of want ever disturb his dreams. He has a house, which is his castle; it looks out upon sunny slopes, or aged elms, or purling water-brooks, or broad fields of grass, or waving grain or corn, or, perchance, upon forest, hill or mountain, or a wide winter-scene of frost-work and snow. It has a tight roof, and under it nestle those whom his heart holds as most dear. Thrice each day his table is spread and covered with the garnered bounties of his fruitful soil, the reward of well-directed labor. It is the product of all those years were not too tender for toil, and is enjoyed as the direct gift of heaven, and assured in the promise of old,—“Ask and ye shall receive.”

Around this social board all are animated by one purpose—the happiness of each other. One heart, one mind, one voice, one effort of hand and will, carry forward the pursuits of the family, and secure the desired results of all. His domain is skirted by the church and the school-house, where the intellect is expanded and stored with useful knowledge and the affections ripened for heaven. In the village, enough of the arts and sciences flourish to satisfy the wants of his occupation, and it forms the centre of the little republic whose members meet there in the farmer's club, lyceum, and on town-meeting days. His wants are few, compared with many others, and he creates the means of supplying most of them within himself. He is both producer and consumer, keeping his own stall and filling the hooks and shelves of others. If a ride to town or a journey is contemplated, he has the means to indulge the desire, as a horse and carriage are common to every farmer. What other profession can boast as much?

Such are a few outlines of the *home of the farmer*. Sheltered, clothed, fed, with a sufficient assurance of all these being continued to him, so that no gloomy anticipations of privation and want shall assail him and make him anxious for the future, the revolutions of nations or States rarely affect his prosperity, or, if at all, only to create a demand for his surplus products and increase their value.

We wish to call the attention of the reader to the idea contained in the quotation in the first line of our article,—

“The common people have become uncommon.”

Those who have been observing persons will find in this remark a great truth. The publication of agricultural newspapers and books, the introduction of new and improved implements, and the discussions that have taken place in the *home of the farmer* and in his neighborhood,

have, in reality made the common people uncommon. That is, they are not now the common people they were forty years ago. They have progressed with other things, in all the arts, in general intelligence.

\* \* \* \* \*  
“They have books;  
As 'twas designed they should when taught their letters.”

They are more polished and refined, converse better, think better. Their dwellings, shops, farms, almost everything, show a higher culture and civilization, and what is especially gratifying, there is, in all classes, a more just appreciation of the occupation of the farmer, and of his position in society.

Let us, then, be industrious, frugal and happy in *February*, and when *March* comes, we will endeavor to extract as many pleasures as we can out of that, first of the Spring months.

#### SALT.

Some modern agricultural writers have doubted the necessity of giving animals salt. The following remarks as to the effect of salt upon health, by Prof. James F. Johnston, of Scotland, may be relished by those who still put salt in their own puddings, and allow their cattle a little now and then:

“The wild buffalo frequents the salt-licks of North-western America; the wild animals in the central parts of Southern Africa are a sure prey to the hunter, who conceals himself behind a salt spring; and our domestic cattle run peacefully to the hand that offers them a taste of this delicious luxury. From time immemorial it has been known that without salt man would miserably perish; and among horrible punishments, entailing certain death, that of feeding culprits on saltless food is said to have prevailed in barbarous times. Maggots and corruption are spoken of by ancient writers as the distressing symptoms which saltless food engenders; but no ancient, or unchemical modern, could explain how such sufferings arose. Now we know why the animal craves salt; why it suffers discomfort, and why it ultimately falls into disease if salt is for a time withheld. Upwards of half the saline matter of the blood (57 per cent.) consists of common salt; and as this is partly discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore, and neither will the bile be able properly to assist the digestion, nor the cartilages to be built up again as fast as they naturally waste.”

CENTRAL HEAT OF THE EARTH.—The rate of increase of heat is equal to one degree of Fahrenheit for every forty-five feet of descent. Looking to the result of such a rate of increase, it is seen that at seven thousand two hundred and ninety feet from the surface the heat will reach two hundred and twelve degrees, the boiling point of water. At twenty-five thousand five hundred feet



it will melt lead; at twenty-one miles melt gold; at seventy-four miles cast iron; at ninety-seven miles soft iron; and at one hundred miles from the surface all will be fluid as water, a mass of seething and boiling rock in a perpetually molten state, doomed possibly never to be cooled or crystallized. The heat will exceed any with which man is acquainted; it will exceed the heat of the electric spark, or the effect of a continued voltaic current. The heat which melts platina as if it were wax, is as ice to it. Could we visually observe its effects, our intellect would afford no means of measuring its intensity. Here is the region of perpetual fire, the source of earthquake and volcanic power.—*Recreative Science.*

#### CHEAP CISTERNS AND CHEAP FILTERS.

Instead of incurring the great expense of excavating wells, stoning them and supplying expensive pumps for obtaining water for the ordinary purposes of a farm-house or barn, a much cheaper and more satisfactory arrangement will be found in the use of my cheap mode of constructing cisterns and filtering the water. A cistern of the dimensions that I shall describe will hold one thousand gallons, will cost but eight dollars, and its capacity may be doubled for less than fifty per cent. additional cost. One of the size above named will be found sufficient for farmers' families generally, and will insure soft water, which is rare in wells.

*Directions for Excavating Cisterns.*—Stake and line out a plat near the building 8 x 18 feet; excavate this one foot in depth; then set the lines in 18 inches on all sides; then excavate all within the lines, or 5 x 15 feet, to the depth of 4 feet in the middle, making the middle level some 9 inches in width, sloping the banks on all the sides and ends to the lines last placed, which will make a section of the pit either way V shaped. except that 9 inches of the bottom will be level.

In digging the banks use care not to disturb the soil not thrown out. When the digging is completed, plaster the bottom, the level part with a good coat of cement mortar, and place a board on it to stand on to do the balance of the work, cutting the board in two equal parts before laying it on the mortar. This done, plaster the entire surface on the ground to the lines last named, then remove one-half of the board and stand on the balance and build a 4 inch brick wall across the pit, about in the middle, laying the bricks, which should be *soft*, (common salmon brick,) in cement, but plastering neither side.

Lay the wall to the line, then remove the balance of the board and put a coat of mortar where it lay. The cistern is now complete, save the covering; this may be done by laying plank over the whole bedding, then on the surface of the first excavation in mortar, or splitting logs from the woods and laying them flat side down, and closing the joints with mortar. The pump pipe should be laid into one end and the leader pipe from the house gutter laid into the other before it is covered. This done, return earth enough to cover the surface at least one foot deeper in the middle than the surrounding ground; level it off neatly and sward it, and you have a complete filtering cistern for eight to twelve years.—*American Farmer.*

#### WISDOM FOR WINTER.

Never go to bed with cold or damp feet.

In going into colder air, keep the mouth resolutely closed, that by compelling the air to pass circuitously through the nose and head, it may become warmed before it reaches the lungs, and thus prevent those shocks and sudden chills which frequently end in pleurisy, pneumonia, and other serious forms of disease.

Never stand still a moment out of doors, especially at street corners after having walked even a short distance.

Never ride near the open window of a vehicle for a single half minute, especially if it has been preceded by a walk; valuable lives have thus been lost, or good health permanently destroyed.

Never wear India-rubber boots in cold, dry weather.

Those who are easily chilled on going out of doors should have some cotton-batting attached to the vest or outer garment, so as to protect the space between the shoulder-blades behind, the lungs being attached to the body at that point; a little there is worth five times the amount over the chest in front.

Never begin a journey until breakfast is eaten.

After speaking, singing, or preaching, in a warm room in winter, do not leave it for at least ten minutes, and even then close the mouth, put on the gloves, wrap up the neck, and put on a cloak or overcoat before passing out of the door; the neglect of these has laid many a good and useful man in a premature grave.

Never speak under a hoarseness, especially if it requires an effort, or gives a hurting or painful feeling, for it often results in a permanent loss of voice, or a long life of invalidism.—*Hall's Journal of Health.*

**SHELTERED FARMS.**—On former occasions we have discussed at some length the importance of growing timber as protection to farm crops, and its effects upon climate. A case in point is given by a correspondent in one of our exchange papers. He speaks of a piece of five acres of wheat in Delaware which grew alongside of a grove of timber; it made a good crop; there were seventy acres exposed to the full blast of the winter's wind, and the consequence was it was hardly worth cutting. He also speaks of the effects of the protection of woods to orchards in Michigan. He says:

"Our orchards here did well when the country was new and the clearings were small. But as our forests recede from the orchards, the bark on the west side of many a fine tree is killed by the piercing west wind. Some of our neighbors have very considerably preserved belts of timber, and clusters of shell-bark, black walnut and butternut; while others, like Time, have cut down all, and are now reaping the fruits of their folly instead of their orchards."—*Valley Farmer.*

**BLACKBERRIES AND RASPBERRIES.**—During the last five years, the editor of the Connecticut *Homestead* has tried the Lawton, Dorchester and Newman's thornless blackberries, and the Hudson River red raspberry, and now says, "anybody is welcome to our plants who will be at the trouble to take them up."

## THE BIRDS OF NEW ENGLAND---No. 8.

## O W L S .

Great Horned Owl—Arctic Horned Owl—The Little Screech Owl, or Mottled Owl.

The GREAT HORNED OWL, (*Bubo Virginianus*, Cuv.) has been aptly styled an "Eagle of the night, the king of the nocturnal tribes of American birds," and its aspect and dismal tones are said to have struck terror into the breasts of our early colonists. "This noted and formidable Owl," according to Wilson, "is found in almost every quarter of the United States. His favorite residence, however, is in the dark solitudes of deep swamps covered with a growth of gigantic timber; and here, as soon as evening draws on, and mankind retire to rest, he sends forth such sounds as seem scarcely to belong to this world, startling the solitary pilgrim as he slumbers by his forest fire,

'Making night hideous.'

Along the mountainous shores of the Ohio, and amidst the deep forests of Indiana, alone, and reposing in the woods, this ghostly watchman has frequently warned me of the approach of morning, and amused me with his singular exclamations, sometimes sweeping down and around my fire, uttering a loud and sudden *Waugh O! Waugh O!* sufficient to have alarmed a whole garrison. He has other nocturnal solos, no less melodious, one of which very strikingly resembles the half-suppressed screams of a person suffocating, or throttled, and cannot fail of being exceedingly entertaining to a lonely, benighted traveller, in the midst of an Indian wilderness!"

In general, there is something in the character of the Owl so solitary and mysterious, something so discordant in his voice, heard only amid the silence and gloom of the night, and in the most lonely and sequestered situations, that peculiarly affects the mind of man, and with the ignorant, often gives rise to superstitious fears, an instance of which is recorded by Dr. Richardson.

"A party of Scottish Highlanders in the service of the Hudson's Bay Company, happened, in a winter's journey, to encamp after nightfall in a dense clump of trees, whose dark and lofty stems, the growth of more than one century, gave a solemnity to the scene that strongly tended to excite the superstitious feelings of the Highlanders. The effect was heightened by the discovery of a tomb, which, with a natural taste displayed by the Indians, had been placed in this secluded spot. Our travellers having finished their supper, were trimming their fire preparatory to retiring to rest, when the slow and dismal notes of the Horned Owl fell on the ear with a startling nearness. None of them being acquainted with the sound, they at once concluded that so unearthly a voice must be the moaning of the spirit of the departed, whose repose they supposed they had disturbed, by inadvertently making a fire of some of the wood of which the tomb had been constructed. They passed a tedious night of fear, and with the first dawn of day, hastily quitted the ill-omened spot."

Audubon observes that the Great-Horned Owl pairs early in February, and that during its courtships the evolutions of the male in the air, and his bowings and snappings of his bill when near the female, are extremely ludicrous to a human

observer. The nest is a bulky structure, some three feet in diameter, placed on a large horizontal branch not far from the stem of the tree, and is composed of large crooked sticks, and lined with coarse grass. The eggs, three to six in number, are nearly round, and of a dull white color.

"This species," observes this distinguished ornithologist, "is very powerful and equally spirited. He attacks wild Turkeys when half grown, and often masters them. Mallards, Guinea-Fowls, and common barn-fowls prove an easy prey, and on seizing them it carries them off in its talons from the farm-yards to the interior of the woods. When wounded it exhibits revengeful tenacity of spirit, scarcely surpassed by any of the noblest of the Eagle tribe, disdaining to scramble away like the Barred Owl, but facing its enemy with undaunted courage, protruding its powerful talons, and snapping his bill as long as he continues in its presence. On these occasions its large goggle eyes are seen to close and open in quick succession, and the feathers of its body being raised, swell out its apparent bulk to nearly double the natural size."

The Crows delight in teasing this Owl whenever they discover it in the daytime, and it is quite amusing to observe these sable orators congregated from the neighboring woods around a thick, dark evergreen, which the Owl has selected as his retreat for the day, and perched as near the object of their insults as their regard for personal safety will permit, uttering low, varied, sarcastic gutturals, accompanied with derisive gestures, protruding their clamorous throats into the face of the Owl, one after another, or several at a time joining in the derision, and angry rehearsal of grievances; or the whole pack at once seem determined to distract the poor Owl with their deafening, discordant cries, belched into the very ears of their victim. At times one might suppose they were twitting this nightly marauder of his foul misdeeds, or deriding him for his gravity and purlblindness in the daytime. When in a more exposed situation, the Crows will repeatedly sweep down upon him from above, one after another, barely missing the Owl in their swift descent, the Owl, meantime, lowering his prominent horns as they pass over him, and in ludicrous ways attempting to dodge the blows so boldly threatened by the Crows, but which they dare not inflict. But at these times I have found this Owl difficult to approach, especially if the day be cloudy, although the Crows, appearing to divine my intentions, would allow me to pass under the trees on which they were sitting, though at other times it is almost impossible to approach within a hundred yards of them.

A bird of this species, slightly wounded, I once kept in confinement to observe its manners. He never at any time exhibited the least fear, but always courageously resisted all attempts to handle him, and when merely approached in his room, would hiss, snap his bill powerfully, and erecting his feathers, truly presented a formidable appearance, and manifested his readiness for a combat. Though carried several miles on a bright sunny day, it seemed to suffer none from the light; a hen, a dog, or a cat, even at considerable distance, at once attracted his attention, and he manifested an uneasiness to attack it, following it with his eyes until it was out of sight. When

surrounded by a crowd of interested spectators, it was the same fearless bird, ready for a grapple with anything that ventured to tease it, but otherwise appeared at ease. The food of this bird is quite various, consisting chiefly, doubtless, of the smaller quadrupeds and large birds, and it is known to be quite destructive to partridges in winter. An esteemed ornithological friend informs me that he once shot one so perfumed with the odor of a *Skunk*, that he was obliged to leave it where it fell, it doubtless having killed one of these animals the preceding night. I once knew one to attack, in midday, the sun shining clearly at the time, a brood of young Red-tailed Hawks, that I had brought down from their nest and left an hour, having eaten one entirely, and killed, plucked clean, and eaten off the head of the second, when I started him from his repast on my return; which shows that the sight of this Owl is less defective in the light of the sun than that of many others. The dismal hootings of this species are well known, his deep bass *hoo-hoo, hoo-oo* being sometimes heard in the daytime on the approach of a storm. Its proper time of activity, however, is in the night, when it seeks its prey by silently gliding along near the earth, but with great velocity, and pounces upon its prey beneath with extreme suddenness. At other times it sails in broad circles like the Eagle, with the greatest degree of rapidity, ease and gracefulness.

The Great-Horned Owl is also known as the *Virginian Eagle Owl*, but its more common appellation is that of *Cat Owl*. The length of the female is full two feet, breadth of wing four feet six inches; the male is somewhat less, but otherwise than in size, the sexes differ but little in external characters. Upper parts finely pencilled with dusky, on a tawny and whitish ground; lower parts, tawny and dusky, elegantly barred transversely with dusky bars, and touches of white; horns, three inches long, consisting of twelve or fourteen broad feathers, black edged with bright tawny.

The ARCTIC HORNED OWL (*Bubo Arctica*, Rich. and Swain.) is a northern species, first accurately described by Richardson and Swainson in their *Northern Zoology*, but as yet little seems to be known concerning it. It is believed to have been seen as far south as Massachusetts, a large white owl with horns having been observed here in the depth of winter. It is described as resembling the Great Horned Owl in size, but is said to be much handsomer, and to specifically differ from this bird otherwise than in color, though some ornithologists have hinted it may prove merely a semi-albino variety of *Bubo Virginiana*. Upper parts finely barred with amber brown and white; lower plumage white with bars of dusky.

The MOTTLED OWL, or the LITTLE SCREECH OWL, (*Scopsasio*, Bonap.) is a well known species in New England, is found over most parts of the United States, and extends its migrations considerably to the northward. Its notes are exceedingly melancholy, being a peculiar quavering kind of wailing, often heard during the evenings and moonlight nights of the autumn months, as well as occasionally at other seasons. It is a harmless and interesting species, feeding chiefly upon mice and small birds, and in winter sometimes enters barns in search of its prey, or to seek refuge from the weather. Its favorite places

of repose are hollow trees, in which it breeds, and dark evergreens. In the daytime it is considerably blinded by the light of the sun, and when discovered by small birds, particularly the Blue Jay, is sorely teased, and furnishes rare sport for the marauding Jay, who may frequently be seen peeping carefully into the hollow trees of the orchard in search of them, at the same time screaming with great vehemence. In its proper season of activity it is a spirited little Owl, and in confinement is found quite amusing, often putting on grotesque airs and snapping its bill when approached, and in the evening exhibits considerable sprightliness, moving about the room with the stillness of thought.

The length of the Mottled Owl is about ten inches; alar extent, twenty-two inches; upper plumage, dark brown, streaked with black, pale brown and ash; lower plumage white, and finely marked with irregular streaks of black and touches of brown; egrets, or horns, prominent, of ten feathers. The young birds are quite different in color from the adult, being of a tawny red above, and bright reddish brown below, marked with touches of black and white, and are commonly known as the *Red Owl*. Wilson describes the Red and Mottled Owl as two distinct species, and now that they are known to be one, there is a diversity of opinion as to which are the adult birds.

J. A. A.

For the New England Farmer.

#### TUBEROUS ROOTS.

ON THE MOST IMPORTANT TUBEROUS ROOTS USED BY DIFFERENT PEOPLE FOR FOOD.

BY WILSON FLAGG.

[CONTINUED.]

The YAM (*Dioscorea alata*) has lately been introduced into this country, and cultivated with considerable success. It is a very nutritious root, and often attains an enormous size. The kind which we cultivate is the Chinese yam, (*D. suti-ra*), which does not require so hot a climate as the other species. In its native countries, it is made into sago, though the true sago is the product of a species of Palm. This nutritious root is grown in Java, Manila, Sumatra, China, and in all parts of the torrid zone. In a hot and damp climate, it often weighs as much as 30 or 40 pounds. Indeed, in Cochin China, they have been known to attain the extraordinary size of 9½ feet in circumference, and to weigh over 400 pounds. This large kind, however, has a fibrous root, and is used chiefly for the manufacture of starch and sago. The yam is not valued so highly by the inhabitants of its native regions, as

The ARUM or ARON, which belongs to a different botanical family, and is considered in the countries in which it is grown as superior in flavor and delicacy to any other known root. The roots of several species of Arum are cultivated with extraordinary care in the hottest parts of the torrid zone, and they are even a still more general article of food than potatoes or bread with us. The Arum is grown in the most distant countries of both continents; Europe does not possess a climate sufficiently warm to produce these esculent roots, which require excessive heat combined with moisture.

All the roots of the Arum have an acid, some-

what poisonous principle, like those of our native plants of this family, as the *Arum triphyllum* or Dragon Flower, which it is well known is excessively acid. This poisonous principle is so slightly connected with the nutritive ingredients, that it is lost in the drying, or by roasting and baking, and the root is then perfectly harmless. The culture of the *Arum* takes place in the same climates as those in which the banana, the sugar cane and the cocoa nut is grown.

In the Sandwich Islands, the *Arum* is called Taro, and the fields in which it is planted, Taro fields. These are generally quadrangular pieces of ground, about forty-five or fifty feet square. They are dug out, two or three feet deep, and so situated that a running stream can be turned into them. These hollows generally lie like terraces, one above another, so that the water can be carried from the higher to the lower ones. These hollows are so deep that the leaves of the plants project but little above their level; the plants are set rather wider than the potato with us, about the distance of cabbages, as we plant them.

The tuber of the Taro plants attains the size of a child's head, and when boiled or baked, it has great resemblance to the sweet potato, but more delicate in flavor, and more nutritious. It is commonly eaten like bread, with or without salt, after being cooked. The tubers are sometimes cut in slices and fried in lard. The most common mode of preparing it is to mash it, after boiling, into a frumery which, after a little water is added, is allowed to ferment. This is the practice of the Sandwich Islanders, who feed themselves, therefore, as we feed our hogs with a fermented mixture. This mash is called Poe, and the inhabitants are said to eat incredible quantities of it.

The **MANIOC**.—This is another of the important roots which is indigenous in the New Continent. The root of the Manioc is one of the principal articles of food in the tropical parts of America. It grows in the same climate that produces the banana, but seems to require more heat. Two varieties of the Manioc plant are cultivated, one of which is called the sweet, the other the bitter manioc. The root of the former is perfectly harmless, while that of the other variety is a violent poison, until the poisonous juice is entirely pressed out of the substance.

From the plant of the Manioc is made the Cassava bread, of which we have heard so much. It is generally prepared in the shape of discs—18 or 20 inches in diameter, and somewhat thin in substance. One pound of this bread is said to be sufficient for the daily food of a native—but it would probably swell, when moistened, to two or three pounds. The substance in common use among us, called Tapioca, is prepared from the Manioc, and forms a very extensive article of commerce.

The plant is propagated by shoots, and is slow of growth according to the heat of the climate. In Brazil, it ripens in six or eight months, in Mexico, nine months usually elapse before the crop can be gathered; there are also varieties which require a year or more for their perfection. Too much cannot be said in praise of this excellent root, but it requires so much time for its maturity, that a people must be civilized and agricultural in their habits, to be able to depend on it as one of their principal resources.

We have thus named and described all the principal tuberous roots which form a predominant article of food with different nations. Such roots as the turnip, the beet, the parsnip and carrot, though highly important agricultural products, form but a small part of the food of any portion of the human race.

*Cambridge, Mass., 1860.*

#### STATE BOARD OF AGRICULTURE.

The *Massachusetts State Board of Agriculture* held its annual meeting at its rooms in the State House, on Tuesday last, December 11, 1860. Nearly all the members of the Board were present, and an earnest spirit was manifested by all in the subjects that came under consideration. It being desirable that the several committees should have an opportunity of closing their reports when their whole number was together, the presentation of them was postponed until the following morning.

Dr. J. BARTLETT, from the Middlesex North Society, stated that the law relating to setting fires in woods ought to be so modified as to protect farmers from the great destruction occasioned by them, and moved that a committee be appointed to inquire into the statistics of losses, and instructed to lay the matter before the Legislature at its next session, and ask such legal provisions as shall either protect or indemnify losers in the matter. The committee was raised, consisting of Messrs. BARTLETT, of Chelmsford, DAVIS, of Plymouth, LORING, of Salem, SMITH, of Middlefield, and LATHROP, of South Hadley.

Mr. BUSHNELL, of Sheffield, called attention to the law requiring competitors for the premiums on grain crops, &c., to weigh and measure all the crop. He thought it a great hardship, and it certainly bore heavily upon the societies in Berkshire county. He inquired whether the law was drawn with the sanction of the Board? Mr. DAVIS, of Plymouth, explained the circumstances under which the law was passed, and its importance in securing reliable results.

Mr. GRENNELL, of Greenfield, thought the law a good one, and that it ought not to be repealed. Dr. LORING, of Salem, expressed an opposite opinion and said that the law could not be complied with, without subjecting the competitor to unnecessary labor and inconvenience. The subject was finally referred to Messrs. LORING, BUSHNELL and DAVIS, to consider it and report at a future day.

On the second day, the Board received and discussed the reports of the delegates to the several county shows which were held in the Commonwealth during the last autumn.

Mr. SEWALL, of Medfield, from the Committee appointed to co-operate with the Commissioners

in relation to the cattle disease, reported, that "the Committee, having had large opportunity to observe the course pursued by the Commissioners, take pleasure in expressing the conviction, that, to the late action of the Legislature, enlarging the powers of the Commissioners and the means at their disposal, followed by their own wise and energetic prosecution of a work attended with much difficulty and pain, is to be ascribed the probable extermination of an evil of the most threatening aspect to the interests of agriculture, and the common welfare of the country.

The committee who had the subject in charge, reported,—

That, after due consideration of the subject, they unanimously decided that the projected publication of an *Agricultural Manual* by a Committee of the Board is inexpedient at the present time.

Mr. SEWALL, of Medfield, introduced the subject of the flowage of low lands, and suggested that the Board should take some action to arouse public sentiment, and try a remedy for the great evil.

Mr. BROWN, of Concord, debated the matter at considerable length, showing the nature and the great extent of the damage done, and, generally, without the slightest compensation. He cited particular cases of hardship, the wide-spread destruction of property, and the influences which half-submerged meadows have upon the health of those residing in the neighborhood. He thought it was eminently the province of the Board to investigate the matter, and publish a decided opinion upon it, urging that the manufacturer has legal privileges that the farmer has never enjoyed; that no man's land should be taken without his consent to be used for private purposes, or that some tribunal should be created to adjust all cases before the land can be flowed. After presenting several other points, he offered the following resolutions:

*Resolved*, That in the opinion of this Board, the agricultural interests of the Commonwealth are greatly injured by the inundation of large tracts of its best lands, and the rights of a portion of our citizens, for whose prosperity we have a special regard, are invaded and their property constantly depreciated.

*Resolved*, That in the opinion of this Board, the law—General Statutes, Chapter 149—"that any person may erect and maintain a dam on a stream not navigable, if not to the injury of a prior mill," *without consent of the owner of the land*, operates greatly to retard the progress of agriculture in the State, and destroys the property of a class of our upright and industrious citizens, and ought to be modified and repealed.

*Resolved*, That a committee of three persons be appointed by the chair to present these opinions of the Board to the next Legislature, and ask that the law be so modified as to prevent any person or persons from flowing the land of another, without first obtaining the written consent of the owner.

Mr. FREEMAN WALKER, of North Brookfield, thought the Board should be careful in its action

on this important subject. Dr. LORING, of Salem, said the resolutions had his entire sympathy, and he had no doubt they had of the whole Board. The resolutions were referred to a select committee consisting of Messrs. DAVIS, GRENNELL and SEWALL, Mr. BROWN declining to act upon it, but would cheerfully labor with them in the cause.

In the afternoon, Mr. GRENNELL read a report upon *Sheep Husbandry*, which, with the discussions upon it, occupied most of the session. The report was minute, able, and of a practical character.

Mr. SMITH, of Middlefield, stated that there should be some legislation by which the societies could protect themselves against peddlers, &c., outside of their grounds, and a committee consisting of Messrs. SMITH, DAVIS and PETERS was appointed to consider and report on the matter.

Dr. BARTLETT submitted a continuation of his report of last year, on the *Diseases of Vegetation*. It was listened to with interest and elicited considerable discussion.

Mr. ATWATER, of Springfield, presented an elaborate report upon *Root Crops*, which was followed by a long and animated discussion, and after some changes was accepted.

Upon the whole, we think this meeting was the most spirited and profitable one the Board has ever had.

**CRANBERRY CULTURE IN NEW JERSEY.**—Much attention is given to the cultivation of cranberries in Burlington county. About 150 acres have been planted this season; of this, one farmer named Chetwood set out 25 acres; another, named G. Gowdy, 17; and Mr. Allen is planting 10 acres. This patch yields 150 bushel per acre. Mr. Allen is selling his for \$4 per bushel, delivered at the house. The whole expense per acre, for building a dam, clearing the ground of roots, and setting out the plants, is only about \$100. Allen's patch has cost \$25 per acre for merely setting out the plants, but this is unusual. It costs fifty or sixty cents per bushel to gather them, a process which is accomplished simply by scooping up the berries with the hands. The work is mostly done by women and children.—*Camden (N. J.) Democrat*.

**RULES FOR PRUNING GRAPES.**—The last number of *Hovey's Magazine* gives substantially the following general rules for grape pruning, after recommending grape growers to be free in the use of the knife, followed by the remark that where one vine is pruned too severely, nine are not pruned enough. No shoots should be nearer than one foot of each other. Prune back to within one eye of the old wood, every fall and spring, about one half of the annual shoots—the remaining eyes producing canes to be retained for bearing next year—when the old bearing wood is in turn to be cut out to make room for new shoots. Disbud or rub off, as soon as they appear, all shoots not wanted as bearing wood.

*For the New England Farmer*

### THE POTATO ROT ONCE MORE

MR. EDITOR:—At the close of the article in your last paper on the cause of the potato rot, you suggested the propriety of discontinuing the discussion of the question for the present, until some new light should break forth upon it. With the propriety of this suggestion I fully accord, as I have no desire to protract the discussion, without the prospect of obtaining further light. Yet it is due to *myself* and to the *neglect* of the question, that I should have the privilege of closing the present discussion with a brief statement of facts, so as to leave the question on the ground of its true merits. I am willing to forego any reply to Mr. Reed's last article, in order to have an opportunity to present the merits of the question, and the discussion that has been had upon it, in its true light to the public.

MR. LYMAN REED, of Baltimore, Maryland, has undertaken to prove that the potato rot is caused by insects. The position he has taken throws the whole burden of proof upon his shoulders. He must prove it to be a fact, that insects cause the potato rot, or fail to do what he has undertaken. By the rules of all just controversy, I am not bound to prove the negative of the question; I may do it, if I please; but I am not bound to do it. All that can be expected of me, is candidly to admit his facts as far as they are true, boldly to rebut and disprove his assertions and inferences when they are untrue; in other words, to show that they are untrue in point of fact, or that they do not apply to the question at issue.

As yet, Mr. Reed has produced but one solitary fact to show that insects are the cause of the potato rot. He says that he and others, by the aid of the microscope, have seen insects on potatoes, performing the work of destruction. For the sake of argument, it has been admitted that Mr. Reed and others have seen, what they say they saw, insects on certain diseased potatoes. But the inference which he attempts to draw from this admitted fact, viz., that insects are the cause of the potato rot, has been denied; because it is believed, that they are not the cause, but the effect or consequent of it; in other words, that the potatoes were thoroughly diseased before the insects were seen upon them. For it seems to be a general and universal law, in the economy of Divine Providence, that all vegetable and animal matter, going to decay, whatever be the cause of the decay, should waste away, be consumed, and used up, in giving existence to myriads of insects. This law applies as well to vegetables as to animals; so that the mere fact of finding insects on rotten or diseased potatoes, is no proof of their being the cause and origin of the rot, any more than the finding of insects in the bodies of dead animals, is a proof that insects have killed those animals.

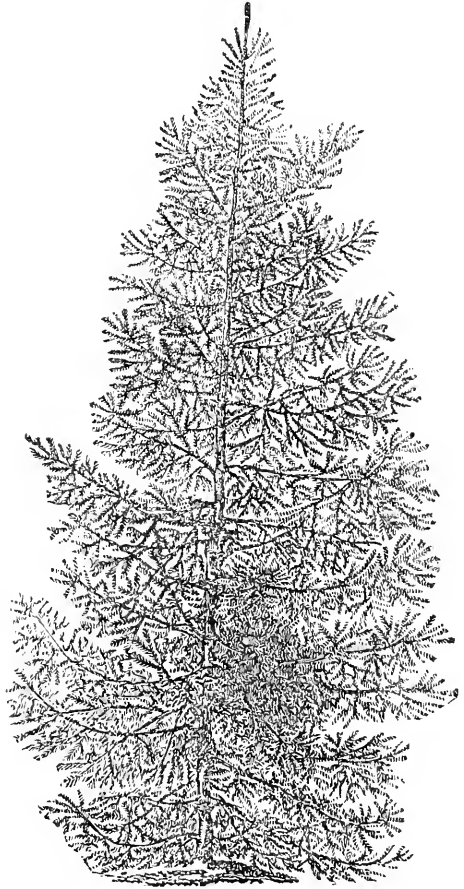
I have, therefore, solicited Mr. Reed's particular attention to the point at issue. I have asked him to prove, if he can, not only that insects are an adequate and sufficient cause of the rot, but that they are the only and original cause of the disease. This he has failed to do, at least to my satisfaction. In my last communication, lest this discussion should vent itself in a windy war of words, I invited Mr. Reed's attention to eight

well-known, stubborn and opposing facts—facts which are the result of careful observation and experience, well known to all good farmers, and utterly inconsistent with the insect theory. And yet Mr. Reed has not seen fit either to admit, or to deny those facts.

JOHN GOLDSBURY.

Warwick, Dec. 17, 1860.

THE SPRUCE FIR, [ABIES EXCELSA.]



Many of our common farmers have begun to embellish the grounds about their dwellings with shrubs and shade trees. They find advantages in so doing, independently of the pleasure derived from merely looking at them. They shelter the house from high winds, break the force of storms of hail, rain and snow, and temper the fierce suns of summer. Thus they save paint and fuel, and, when it is needed, afford a grateful and refreshing shade. These are, certainly, considerations. And so is the beauty which they give to the landscape, and that air of home, snugness and sheltering warmth or shade which they afford to the house in which those farmers live.

But when they look farther, and find that these trees have a direct influence upon the climate—

that they keep it warmer and more moist, and that at some future day, when the present forests may have been manufactured into bulwarks of defence, or articles of domestic industry, or used as fuel, these may have an important value for practical uses.

Among the most beautiful of the evergreens is the Spruce Fir or Norway Spruce, an accurate figure of which we give above. It is one of the loftiest trees of Europe, growing from one hundred and fifty to one hundred and eighty feet in height, with a straight trunk. It is also one of the most beautiful pyramidal trees, and one that has succeeded admirably in this country. The branches and twigs are often beautifully pendulous, when the tree has attained some size. This species is very characteristic, and therefore peculiarly valuable in adorning the landscape; it bears trimming, and makes a good shelter and barrier hedge, and withstands the severest winters. In *WARDER'S "Hedges and Evergreens,"* a more particular account of the various species of evergreens may be found.

*For the New England Farmer.*

#### UNCERTAINTIES IN FARMING.

Who knows for a certainty the comparative value of the various root crops for making milk or flesh? No experience of my own, or information from other sources, has satisfied me on these points.

Facts, or apparent facts, in reference to these questions are so often met with conflicting with each other, that it really seems as if no systematic, well conducted experiments had ever been fully followed out to their true results. Then, again, as to their effect upon the soil on which they grow. I have known many complain of inability to produce as good crops of corn following turnips, as they did following other crops. It has also been my experience. Yet we find many contending that it is not owing to the turnips. Who knows, and will tell us where the truth lies? I know, in my own case, that I applied three times the quantity of manure for the turnip crop that I did for the potatoes along side, and treated both alike the following season, for corn, and did not get as much from the turnip piece as from the potato by ten bushels per acre, and the oats that followed the corn were very much less; in fact, when laid down to grass, a stranger would have noted the difference in favor of the piece planted with potatoes. How is this, and who will tell us?

The soil seemed packed, and plowed much harder where the turnips grew. Truth, in all matters of this kind, should be brought to light. Farmers in this country have too long been in the dark respecting these, to them, important questions. The compensation for their products is small, compared with what it is in England. True, their taxes and rents are less, but their labor is far more expensive. I fail to recall the time when New England farmers could go to

Brighton market and purchase neat cattle and feed them up for beef, without losing money, unless it was done with grass and unsalable products of the farm. Even when fed in this way, the question arises whether it would not be more for their interest to have given the same provender to their cows, and increased their dairy products, as well as fitted them for better withstanding the severity of our winters. K. O.

*Rochester, Dec. 18th, 1860.*

#### WHAT CAUSES CORNS IN THE FEET OF HORSES.

The question has often been asked: "What are the causes of corns in the feet of horses?" It is not unfrequently that the exciting cause can be traced directly to the influence of improper shoeing; in fact, I may say a very large majority of cases are so caused. The first and by far the most frequent cause is contraction of the heels, which, in almost every case, is caused by our present erroneous mode of shoeing. In the first place, the smith bevels the shoe from without inwards, so that when secured to the foot it prevents the natural expansion of the hoof, as it is impossible for it to expand up these inclined planes. When the weight of the animal is thrown upon it, it will be observed that the foot rests in a concavity, which, resisting the natural expansion of the hoof, gradually forces the heels inwards; and, to save a little trouble, the smith frequently hastens the process of contraction by cutting away the bars of the foot, thus weakening the quarters very considerably. These things are altogether wrong. If the bars were preserved sound, and the shoe made with a level bearing, we should seldom find a horse troubled with corns.

Another cause is making the shoe too narrow at the heels, causing unnatural pressure and bruise on that part of the sole between the bar and crust of the foot. When thus caused they are readily removed by cutting well out, and applying some of the caustic applications, and the widening of the shoe. If caused by contraction, the cutting process and caustic applications are proper, with the additional trouble of restoring the natural elasticity of the hoof, which can best be done by poultices, and a proper hoof ointment, and applying a shoe beveled slightly outwards from the last nail hole. The shoe should be hammered, but not twisted, as is sometimes done by the smith to save a little labor; the smith generally not regarding his extra labor as paid for. Better for you to pay him two prices, and have the work done properly.

Corns are the cause, in most cases, of sprung knees. The horse, in order to relieve the heels from pressure, throws his weight mainly on the toe, thus relaxing the tendons and suspensory ligament of the leg, contraction of which naturally follows. As a proof of this assertion, examine for yourselves the feet of sprung kneed horses, and you will find a majority, if not four-fifths of them, with corns.

When the feet are not contracted, take pains to keep them so by level shoeing, and preserving the elasticity of the hoofs. By a little attention to these matters much suffering will be prevented, as well as time and money saved.—*Ohio Farmer.*

*For the New England Farmer.*

### THE BROWN, OR KING PHILIP CORN.

In the *New England Farmer* of the 15th December, Mr. Stearns suggests some experience and inquiries in regard to the Brown or King Philip corn, which has been a subject of much praise in the Patent Office Reports and other publications. This wide spread praise of the merits of this corn is not in accordance with my experience and observation. Many years ago, Mr. Hill, in his *Monthly Visitor*, was much interested in this corn, and set forth its valuable properties in his paper prominently. One of my neighbors, desirous of obtaining it, employed me, through the mail carriers, to get half a bushel of the seed from Mr. Brown, of Moultonboro', N. H., for him, for which I paid a high price. The kernels of corn were very large and fair, as fine as I have ever seen. My neighbor gave me a quart or two of the corn, which I planted, and he the rest. It was planted on good warm corn land, in good, but not high cultivation. We were both much disappointed that the corn did not come up well. From ten to twenty, and perhaps twenty-five per cent. of it, did not vegetate. The stalks grew tall, but not stout, and the corn was not large or sound. We found it late, compared with common seed, and not well cared. A few years before, a Mr. Chadbourne, of Cornish, gave me some corn to plant, recommending it as productive and early. I tried it, and it failed in both particulars. Mr. Chadbourne subsequently informed me that his, that year, did the same. I was not then acquainted with the Brown corn, now frequently called the King Philip corn. After seeing and trying the corn we got from Mr. Brown, I was satisfied it was the same I had received of Mr. Chadbourne. Some four or five years since, at our York county agricultural and cattle show at Saco, some tresses of corn raised, it was said, on light land in Saco, were exhibited. Some of the King Philip corn and some of the Dutton corn. There was a wide difference against the King Philip kind, though both were raised in the same field, and with the same cultivation in every respect.

These facts, and others of a similar character, have produced a strong impression on my mind, that the King Philip or Brown corn, which I believe to be the same, is neither early or productive. I cannot account for its failure to vegetate, when it looked so full and fair; but I afterwards made the acquaintance of a Mr. Davis, I think his name was, in Bangor, who had migrated from New Hampshire, at the lower end of Winnipiseogee Lake, who told me that, at his father's, whose farm, I think, was on an island in the lake, they got their seed corn one year from Mr. Brown, and came near losing their crop in consequence of its not vegetating. He spoke of the corn with much disparagement, and I think he was correct.

Corn, in a very few years, will change materially and become acclimated, not only in time of ripening, but in other particulars. I have noticed this in many instances. The Canada corn, in a short time, will lose its earliness, unless care is taken to prevent it. The corn I now plant was originally the Canada eight-rowed seed, planted in Maine on the Passadumkeag, and thence on the Aroostook, whence I obtained it nearly twenty years ago. It has much improved in produc-

tiveness, very little eight rows, but ten, mostly twelve, some fourteen and some sixteen rows. I have preserved, in a great measure, its earliness by cutting up my seed from the best and earliest stocks in August. This practice seems to have the effect of short seasons in hastening the plant to early maturity. A Mr. Friend, in Alfred, many years ago, pursued this practice with our old-fashioned eight-rowed yellow corn, till his became about two weeks earlier than his neighbors, and was known and sought for as the Friend corn.

Mr. Stearns speaks of his corn changing color. This I believe is common, and one of the changes of climate. Some kinds seem to amalgamate or hybridize with other varieties, and others mix on the cob with different kernels of different color and composition. Probably corn is susceptible of great improvements in a course of experiments in hybridizing, carefully made with various varieties.

I make these suggestions to put farmers on their guard against high pretensions of speculators in seeds of really no value.

RUFUS MCINTIRE.

*Parsonsfield, Me., Dec., 1860.*

*For the New England Farmer.*

### HARD TIMES---THE FARMER.

Hard times! hard times! I don't know what we are going to do, or what will become of us! These expressions I hear a dozen times a day, or something of the same import. And truly the times are hard, for our mechanics and most laboring men feel the pressure to a greater or less extent. There ever will be dull and hard times to those who depend upon the employment of others for their daily bread. Still, wealth would not be wealth, unless there were those willing to sell their labor for the sake of obtaining some of it. But I do not propose to discuss a question of political economy, but to remind the farmers who take the *New England Farmer* of their happy lot.

Every man likes to feel independent, to feel that he is not dependent upon A, B, or C, for his daily bread, and the comforts of a home, and that the nod of a nabob conveys no fears to him whether he shall have them or not; and if there is such a thing as a free and independent man, it is he who owns and tills his own broad acres. What cares he for the excitement and turmoil of the political world? Not that he feels no interest in these things; not that he does not love his country and this glorious Union, founded as it was by the tears, cares, wealth and blood of his fathers, the best of all governments. No, not these, for he feels and knows that he is one of that great army which make up the "bone and sinew" of all this greatness, which demagogues of the present day would rashly tear in pieces; but ere it is done, this "bone and sinew" must be consulted, or they "boast in vain." Happy will it be, if the present "excitement" and pressure of the time, shall cause the thousands of young men, who contemplate, or have left their quiet farm-home, to rush to our cities and larger towns for the purpose of "making haste to be rich," to pause and count the cost before the disappointments of life compel them to do so; and when they would fain do so, the good old homestead has passed into other hands, and those who had



loved them in childhood and sighed for their return, have gone to that heavenly homestead, and cannot return to welcome them.

Not a day passes but I hear some of our mechanics express the wish that they had a farm, but the obstacles to overcome, for them to accomplish their wish, are so great, that many of them will live and die in the positions they now occupy. Young man, take the advice of one who has seen a good deal of human life, of its ups and downs, and stick to the old farm, and cheer the old folks by the health and strength of your manhood. Stick to its quiet, virtuous and independent hard work, dirty work, as fops and snobs may call it, but which brings you good, honest, clean gold, and a conscience void of offence towards God and man. Stick by the old folks and the old farm, let what will come, and my word for it, when you are fifty years old, you will not need, but will give the same advice to any young man who should ask you.

N. Q. T.

King Oak Hill, 1860.

For the New England Farmer.

THOUGHTS SUGGESTED BY THE N. E. FARMER, DEC., 1860.

Page 540.—*Egyptian Corn*—(*Deceptive and Offensive Advertisements*.)—The thanks of the readers of this journal, and of the farming fraternity at large, are certainly due to those who have given reports of their experience with this highly puffed humbug, as their natural repugnance to make a disclosure of their "greenness," or too great credulity, must have been overcome mainly by a benevolent wish to save others from being similarly imposed upon. The thanks of farmers are also due to the editor for giving insertion to a sufficient number of these disclosures and exposures to serve the purpose of assuring even the most credulous, that there can be no doubt but that this highly puffed corn is nothing more nor less than an iniquitous imposition—a veritable humbug, extensively advertised to obtain the hard earned money of farmers on false pretences. Both parties, the reporters and the editor, have certainly conferred a benefit upon the agricultural community by giving to the public these exposures—a benefit which is not confined to the prevention of further evil and imposition in this particular case alone, but which, with the more discriminating, at least, includes the prevention of other similar impositions. Those who fail to obtain from these exposures the portion of benefit last referred to, or who are caught in the very next trap baited for farmers, must belong to the class of the simple ones whose fate, it seems, is to "pass on," unbenefited by any warnings, and be punished. All others will learn from such a case as this, to be more cautious than heretofore in regard to all advertisements of a similar nature; while publishers and conductors of the press may take from it a hint of the need of the greatest carefulness, if they would avoid misleading their readers.

We may take the present occasion of saying that the rogues who practice upon, and profit by the unsuspecting credulity of farmers, and others, would not succeed so wonderfully as they seem to do, were it not that there appears to be an ut-

ter disregard of principle on the part of the majority of paper publishers in regard to the insertion of advertisements. Too many seem to admit into their advertising columns everything that is offered to them, however objectionable on the score of decency, or however plainly marked with tokens of being intended to defraud and deceive the unwary. The number of papers is but small, we fear, from which all such advertisements are strictly and invariably excluded. We long for the arrival of the day when papers polluted by indecent advertisements, as also those which admit advertisements which have any appearance of being deceptive or fraudulent, will not be admitted into respectable families. The dawn of that day is already come, for we know of a few families who have discontinued papers, whose publishers, after being admonished, or made aware of the cause of offence, persisted in polluting their pages with such advertisements as we have just named. Those editors and publishers who keep their publications pure of all abominable and rascally advertisements deserve especial honor, and will, we trust, secure an ever increasing appreciation and patronage. Such honor this journal deserves, for we are truly very much gratified in being able to say that we have never seen in the columns of the *Farmer* any advertisement calculated to offend the purest taste, or to mislead the unwary. And be it remembered that this is written several hundred miles from the office of said paper, and by one to whom both editor and publishers are, personally, entirely unknown, and that, of course, our testimony is wholly unbiassed and unsought. Besides, its truthfulness can be put to the test by any one so disposed, though attentive and observant readers will be ready at once to endorse and confirm it.

Page 542.—*Autumnal Shows*.—The perversion of our agricultural fairs grows worse and worse every year, and threatens to put an end to their usefulness. This would be a great evil, for the usefulness of unperverted agricultural fairs in stimulating to progress and improvement is so evident as to be generally acknowledged. Cannot the threatened evil be prevented? Cannot some ingenious Yankee devise an effectual mode of prevention or of cure? Until some such discovery is made, the best thing, perhaps, that can be done is to utter earnest protests, like this of Mr. Pettee, or to lay on the lash of ridicule, as has been pretty well done in the article quoted from the *Homestead*, on page 575 of this number.

Page 542.—*Apples*.—If the readers of this article, and of another on *Baked Apples*, on page 553, should give them the consideration which they deserve, and should regulate the dietary arrangements of their families in accordance with the salutary truths therein contained, the benefits resulting therefrom would be more, and greater far than the mere diminution of doctors' bills, alluded to in the former of these articles, though this of itself would amount, in some families, to more than the subscription price of this journal for ten or a dozen years, or even a score of them.

Page 546.—*A Profitable Grass Farm*.—We presume that not a few of the readers of this article, as well as the present writer, would have liked very much that the article had furnished them with more information than it does as to

the mode of culture, and the kinds of top-dressing used by Mr. Morgan, for who that reads of such extraordinary crops, as four tons of hay per acre at the first cutting, and two or three tons more at the second cutting, can fail to have his curiosity aroused, and a desire awakened to learn the process or processes by which such wonderful crops have been secured. Perhaps the editor could do no more acceptable or useful service to his readers than to recur to this subject, and furnish them with the fullest information within his reach, in regard to the modes of culture or management by which such marvellous crops have been obtained. Many would like such large crops, and may reasonably think that what has been done by one man, may be done again by others, if only they know how.

*Page 555.—Economy in Feeding Stock.*—It must be truly gratifying to every human heart to witness the efforts made to improve the sheltering of stock, and to learn that an improvement in this respect is constantly being made.

MORE ANON.

#### EXTRACTS AND REPLIES.

##### LEGHORN FOWLS.

Can you or any of your readers give me light upon the Leghorn fowl? I have heard them spoken of very highly. Why are they not more common? Are they of recent introduction into this country, and from where? Are they hardy enough to make good winter layers in our climate? If of pure blood, are they always white, and do they have a large falling comb, like the Black Spanish?

What is the average size, and do they never want to set? Are they better layers than common hens? Are their eggs of good size? As I have been told,—do the pullets commence to lay at an early age? Are any for sale in this vicinity, and at what price? If not, can eggs probably be had in the spring for setting, and at what price? II.

*Dartmouth, Dec., 1860.*

REMARKS.—Mr. R. G. ANTHONY, of New Bedford, this State, in the *Monthly Farmer* for March, 1860, says he has kept the Leghorn fowls pure, and finds them "all he could wish." Their eggs are large, they are constant layers and rarely wish to set. Mr. L. R. HEWINS, of Foxboro', in the same vol., page 166, says "the Leghorns have done the best with him of any fowls he has ever kept." He also states in the July number, page 304, that in size and habit the Leghorns are very much like the Black Spanish fowls; they lay younger than the Spanish; their legs and skin are yellow, with white feathers. They hatch well, and are very hardy.

##### HOW TO RELIEVE CHOKED CATTLE.

Put one arm over the neck, so as to have one hand on each side, find the substance that the animal is choked with, then place your thumb below it on each side, and shove it gently up into the mouth. I have relieved a great many choked cattle for myself and neighbors, and never found a case but I succeeded in. One case I had where

the animal would not take it in to the mouth when it was shoved up; in that case we put a ring in to the mouth, and another person easily took out the offending substance, while I held it up to the swallow.

LEVI DAVENPORT.  
*Coleraine, Dec. 4, 1860.*

##### FOUL OF THE FOOT IN CATTLE—COCKED KNEES IN HORSES.

Can you or any of your subscribers tell me the cause and cure of foul of the foot in cattle?

What is the best time for cutting timber for fence posts?

What will cure cocked knees in horses?

*Essex, Vt., Dec., 1860.*

REMARKS.—Foul in the foot is generally occasioned, we think, by exposing animals to wet and cold mud or manure, in cold weather, and then tying them up at night without cleaning and drying their feet. Persons sometimes use a pair of oxen for several days in succession, in getting out manure, and keep them standing for most of the time in its strong juices, while they may be nearly at the freezing point, and then put them up with this matter congealed to their feet. The ox, as well as the horse, ought to be cleaned and "dried off," when taken from work, before he is put up for the night. To secure perfect cleanliness is the first step in the remedial process, and for this purpose a weak solution of blue vitriol forms an excellent wash. Mr. CHARLES ROBINSON, of Lexington, communicated to us a remedy, several years ago, as follows:

"Oil of spike, *oleum nardenien*, about a teaspoonful once a day to each foot, will effect a cure in one week. The claw should be opened, cleaned a little, and the oil turned in."

"A simple cure for the *Foul in the Foot*. After cleaning the foot, pour in a few drops of spirits of turpentine, and unless in very aggravated cases, two or three applications will be sufficient. I have always used it, and when applied in season have never known its failing."

We know of no cure for sprung knees in horses.

##### ONE HORSE THRESHING MACHINE.

An "Old Subscriber," from Ellsworth, Me., inquires in regard to one-horse threshing machines. Please allow me to state that we, (my father and myself,) have used the past season, for threshing wheat, one of A. W. Gray's single horse power, thresher and separator, and that its performance, in every respect, was satisfactory to us.

We think this machine has peculiar merits, such as lightness, portability, small amount of friction, thereby greater power, &c., which will not be overlooked by any one about to purchase machinery of this kind.

A horse weighing 950 pounds, with moderate elevation of the power, will thresh grain or saw cord-wood with expedition, and in the most perfect manner.

From the experience of one season, I should advise "Subscriber" to purchase one of these machines, and do his own threshing, sawing

wood, &c., in preference to hiring it done by hand or otherwise.

They are manufactured at Middletown, Vt., by A. W. Gray & Son, who will deliver them, to any address, at their depot. Single power, thrasher and separator, \$125; circular saw, 24 inches, filed and set, frame and balance wheel, \$37.

M. A. THOMPSON.

*Swansey, N. H., Dec. 1, 1860.*

#### FATTENING OF SWINE.

I have looked with some anxiety for the experience of our farmers in fattening swine, since the statement that dry meal would make more pork than it would feed any other way. If that can be proved to be a fact, it will save pork raisers some labor. I have practiced scalding all my meal and then putting in milk or slops to make it so thin that it can be poured from the pail readily. I hope some one who has conveniences for weighing live hogs will give the matter a fair trial and report in the *Farmer*.

*Roxbury, Vt., Dec., 1860.* W. A. SIMONDS.

*For the New England Farmer.*

#### MESSRS. SMEE AND REED ON THE POTATO DISEASE.

In 1846 Mr. Smee, surgeon to the Bank of England, and F. R. S., published a small book upon the potato disease. I have not had an opportunity to read this work thoroughly, but have secured from his "Resumé" the following conclusions:

"(4.) The plant is subject to death at various parts, or a sort of vegetable gangrene.

"(5.) This death, in the form presented by the present disease, is influenced, but not caused, by light, heat, electricity, moisture, soils and manure.

"(6.) It is, however, caused by the *Aphis* vastator, which punctures the leaf, sucks the sap, and destroys the relation between the leaf and the root, thus causing the leaf or some other part of the plant to become gangrened, or in other words, to die."

Mr. Smee also observes, that this insect attacks many other garden vegetables, and that, if not destroyed, it may cause famine in some districts, though he thinks the evil fleeting, as the vastator will probably be destroyed by other insects. Every remedy, however, should be employed, not only against the insect itself, but also to mitigate the influences.

That the *Aphis* vastator attacks other vegetables, I think in this country farmers have made no complaint. They decay, so far as they do decay, from the usual causes; and the wonder is, why the potato cannot rot, without cause from an insect, as well as other vegetables.

It will be seen by Mr. Smee's theory, that there are six powerful influences affecting the disease, which are usually regarded as the causes; and they are so numerous that it would seem they might overpower, if not entirely destroy, his insect. Besides, Mr. Wilson Flagg observes in the last Massachusetts Agricultural Report, (though I did not myself see the statement in Mr. Smee's book,) that Mr. S. found that when he placed the insects that infested the unsound tubers upon

one that was sound, they would not remain upon it, but left it. Hence the reasonable conclusion that they feed only upon those which are already decayed.

It will also be observed, that Mr. Smee's work was published about two years after the disease appeared; and that further investigation and more extended observation may not, in his own opinion, have sustained the theory.

But I pass to the Hon. Lyman Reed, of Baltimore, who seems to have adopted Mr. Smee's theory—bating, perhaps, the influences—Mr. R. being, as I should judge, a pure, unadulterated insectarian. I mean no disrespect to him; for if he has spent time and money in the investigation of the potato disease, he should be honored, though the public may be disappointed in his developments. To sustain his theory—or to "establish these facts," as he says, namely, the facts which constitute the essence of his theory—he has certificates of seventeen members of Congress. Now, Mr. Reed thinks that there is no appeal from the opinion of these seventeen gentlemen! They have seen the insects, and they believe they destroy the potato. But Mr. Pourtales and Mr. Flint, who saw these same insects through the microscope, do not come to the same conclusion. They probably and very sensibly believe, that in abstruse, scientific investigation, it takes more than seventeen men, (M. C.'s though they may be,) to establish a fact, particularly against the general belief. And perhaps there has been no theory advanced relating to this disease, which may not easily procure seventeen intelligent gentlemen to certify that that is the true cause. Of course, that of the atmospheric theory could procure a legion, and probably Mr. Pourtales and Mr. Flint would be among the number, notwithstanding Mr. Reed's readiness to place them in defence of his "facts!" Yet all the theories cannot be true.

These members of Congress say in their certificate, "We feel convinced that a new and important discovery has been made." Of what? That insects are on the tubers. No one can dispute the test. By whom? Not certainly by Mr. Reed, for Mr. Smee claims priority. But they say, "so far as we can judge," &c., where these insects have operated, the tuber "prematurely decays." Here the public, till more fully convinced, will join issue.

During the past season, some of my potatoes grown on new land, were found to be greatly eaten by the common white black-headed grub of the gardens. But they were not diseased, and have not since rotted on that account, though some of my potatoes have exhibited dry rot in the cellar. It would seem by this fact, that simply gnawing or puncturing a tuber does not predispose to disease any more than cutting with the hoe; and hence, that if the *Aphis* destroys it, it must be from the effusion of poison, as Mr. Reed claims. Yet I think the economy of this law a little remarkable, as I observed in a communication two years ago, and to which Mr. Goldsbury has alluded. By the way, is it demonstrated that no tubers rot except those which have been gangrened by the *Aphis*? If so, then he is a very ancient enemy, and only suddenly re-inforced himself in 1843. Do the variable states of the atmosphere, moisture, warmth, manure, or soil, generate or assist in generating this insect?

The microscope is a wonderful instrument ; but while it reveals many important facts, it also presents those which are unimportant and trifling. It creates mountains out of very small mole-hills, makes monsters of mites, (myriads of which could not dust the surface of a diamond,) and frightens the epicure with thousands of sea-serpents in his oyster-water ! Human beings may have well been denied by nature this infinitesimal vision.

"Say, why's not man a microscopic eye?  
For this plain reason, man is not a fly."

But waiving all this, the practical question is, have we a remedy for the potato disease ? Mr. Reed says *he* has, and it is patented, and rights to use it are for sale. Yet the committee of Congress were not convinced of this, for they cautiously say, "and *if*, as Mr. Reed asserts, he has found an infallible remedy," &c. But they were only judging of the presence and effects of insects, for which no patent could be expected. The patent was granted for the remedy, and Mr. Reed says it is successful with him. But why is it that cultivators know so little about this preventive ? Why is it that nobody but the patentee can with certainty raise sound potatoes ? Have not farmers faith enough to purchase the remedy, or do they have the remedy and disease both ? If I were Mr. Reed, I would not discuss the *cause*, even with an angel ; but I would show skeptical human beings that I could *give them sound potatoes*, and would prove that my patent right was really what I claimed for it, even if I supplied a hundred farmers gratuitously. In New England we know nothing of it, and how many years longer will Mr. Reed reiterate that he holds the one thing needful for successful potato culture ? Even the gentleman's "immediate neighbors of Waltham, Mass.," to whom he appealed *nine* years ago for proof of the efficacy of his remedy, are not, as I have heard, eminently conspicuous above others for their sound potatoes ! Further proof of the remedy is what is due to the patentee and to the public ; and when he (or any one else with his remedy,) can grow a field of sound Chenango potatoes, and give evidence of it, year after year, letting them remain in the hill from May till the first of October, he will have gone far to show to the world that his theory is based upon facts.

West Medford, Dec., 1860.

D. W. L.

#### INGENUITY OF THE SPIDER.

Let me put a spider in a lady's hand. She is aghast. She shrieks. The nasty, ugly thing. Madam, the spider is perhaps shocked at your Brussels lace, and although you may be the most exquisite painter living, the spider has a right to laugh at your coarse daubs as she runs over them. Just show me your crochet-work when you shriek at her. "Have you spent half your days," the spider, if she be spiteful, may remark : "Have you spent half your days upon this clumsy antimassar and ottoman cover ? If I were big enough I might with reason drop you, and cry out at you. Let me spend a day with you and bring my work. I have four little bags of thread—such little bags ! In every bag there are about 4,000 holes—such little holes ! Out of each hole a thread runs, and all the threads I spin together as they run ; and then they make but one thread of the web I weave.

I have a member of my family who is no bigger than a grain of sand."

Imagine what a slender web she makes, and of that, too, each thread is made of 4,000 or 5,000 threads that have passed out of her four bags through 4,000 or 5,000 little holes. Would you drop her, too, crying out about your delicacy ? A pretty thing for you to plume yourselves on your delicacy, and scream at us.

For the New England Farmer.

#### ENEMIES OF FARMERS.

In the town from which I write, the people are mostly farmers. My first impression, upon my first visit to the town, was one of surprise that so valuable land should be estimated of so little value, and that there should be so many poor among the people. I began to inquire, What are the causes of this lack of prosperity ? What are the great enemies of the farmer ?

My first inquiry was relative to the healthfulness of the locality. This resulted in a full conviction that the locality was decidedly favorable to health and longevity.

Is there any absence of market-privileges ? There are few towns in New England very much more accommodated in this respect. It is near cities and large villages, and only a few miles from the railroad running from Portland to Boston. That is sufficient market accommodation.

What have the habits of the community to answer for in the account ? The better portion of the people are industrious, economical and orderly. There are many men who habitually and practically despise the legal restrictions on the sale of intoxicating liquors. Here is, perhaps, one of the outlets which drain away wealth, and make men poor, and the manure-heaps scarce. Drunkenness is a deadly enemy to farmers and to farms. The cost and loss consequent upon the habit of drinking is not less than some dollars each for every man, woman and child in the community. And where is the community compensated for all this ? Echo answers, where ? Neither bloated faces nor sunken eyes are indications of agricultural efficiency. Then, again, another great enemy to New England farms and farmers is tobacco. Bite it, or burn it, or blow it, it will never pay the cost. Many a man eats enough of the nasty stuff, yearly, to pay the cost of bringing up a boy, or well towards it. Isn't that economy at a great rate ? Farmers may as well afford to hunt and eat bed-bugs, as they can tobacco plugs. Dollars, again, for each man, woman, and child, is spent yearly in the community for plugs and polluted mastication-mills. "Farming won't pay !" See what rivers of rum have drowned those poor fellows who fell into the current ; and what Senecas of spittle have issued from mouths that a whole month's winter-aring could not make sweet of smelling ! Tobacco is a great enemy of the farmer, especially where a hired man goes on to the hay-mow with a lighted pipe ! or when the match that lighted a cigar is thrown all a-blaze into the straw. It is a wonderful age of improvement !

"There's many a mill" to grind up farmers, as well as to grind their grain, but none of the men have any need to hop into the hopper. It seems

to me that God made farmers to be the ruling class in sobriety. Extravagance in dressing or dashing is enough out of place anywhere. But the lords of the soil must be a sober nobility; living at the tip-top of all moral, religious or social interests, and exempt from all habits of dissipation and fashionable extravagance, if they would realize their greatness. A fashionable fop, compared with a true young farmer, is about like a pauper compared to a king.

With a little attention, and proper dressing on the land, I have raised some ruta bagas the past season, weighing 14 lbs. apiece, on soil which has been scoffed at as worthless for an age. They were not sowed until about the twentieth of June.

Pardon the pinches on profligate practices.  
Lee, N. H., 1860. COMINGS.

*For the New England Farmer.*

#### THE REVIEW OF THE SEASON.

MR. EDITOR:—From the records of the past, we may gather much that is instructive and interesting, regarding the period of time on which the farmer depends for his success in the productions of the farm. By comparing this season with former seasons, we may see the cause of success or failure in many of our crops. The great drought of 1859 continued till August, 1860, affecting the crops of the past season in a very serious manner in this region, but much more so near the shores of Lake Champlain, while at no great distance on either side we have accounts of plentiful crops.

April had a mean temperature of 41.18 deg., which is not far from the mean temperature of past years. The amount of rain was 0.87 inches—the smallest amount for many years. It fell during seven days, and the greatest amount in any one day was 0.36. Grass commenced growing about the 6th, and made but little progress during the season. The amount of cloudiness was 48 per cent.

May had a mean temperature of 58.70 deg., and was the warmest May for the past eight years, with the exception of 1859. The amount of rain was 1.23 inches, being the smallest amount for many years. Such extreme dry weather injured the crops materially. The amount of cloudiness was about 54 per cent. The first thunder storm took place on the 7th day—the same day on which the first thunder storm occurred last year. The mercury stood at 90 deg., at 2, P. M., and was the same last year at the same hour. The last frost of spring took place on the morning of the 21st day.

June had a mean temperature of 65.10 deg., which is about the mean temperature for several years past. The amount of rain was 2.54 inches—much below the usual quantity. The amount of cloudiness was about 51 per cent. Rain fell on 12 days, and the largest amount on any one day was 0.71 inches.

July had a mean temperature of 66.26 deg., which is about three deg. colder than the mean, and is the coldest July of the past eight years. The amount of rain was 4.27 inches—enough for all practical purposes were it not for the extreme dry weather previous. But the ground was not saturated, and was still rather too dry for vege-

tion. Rain fell on 15 days, and the greatest amount in any one day was 1.01 inches. The amount of cloudiness was about 53 per cent.

August had a mean temperature of 67.66 deg., which is 1.66 above the mean, and was the warmest August with the exception of 1859 for the past eight years. The amount of rain was 7.30 inches—the largest amount since 1856. Rain fell on 13 days, and the largest amount on any one day was 2.07 inches. The amount of cloudiness was about 51 per cent.

September had a mean temperature of 56.59 deg., which is 1.62 below the mean, and is the coldest September in the past eight years with the exception of 1859. The amount of rain was 3.52 inches, being about the usual quantity. Rain fell on 13 days, and the largest amount on any one day was 1.37 inches. The amount of cloudiness was about 50 per cent. The first light frost was seen on the morning of the 2d day, and the first hard frost sufficient to destroy vegetation was on the morning of the 27th.

The whole amount of rain during the year up to Sept. 30th, was 23.32 inches, and the whole amount from April 1st to Sept. 30th, was 19.23 inches. 4.64 inches fell in the first three months, or an average of 1.54 inches per month, and 14.59 in the last three months, or an average of 6.41 per month. This shows a great drought in the first part of the season, when crops needed rain, and rain enough during the ripening of crops. Summer period free from frost 103 days. Time free from frost sufficient to destroy vegetation 128 days. There has been a large proportion of south-east wind during the summer, but no heavy gales, and no severe storms of any kind.

Since September, the weather has been more favorable. Rain has fallen in abundance. The earth is saturated with water, and the prospect for crops next season is good. The temperature of October was 46.65 deg., being about the mean. The amount of rain was 1.92 inches, and of snow one inch, being somewhat less than usual.

November had a temperature of 38.92 deg., which is 3.31 above the mean, and is the warmest November for many years. The amount of rain was 4.62 inches, and of snow 2.75 inches. There was but little foddering done in November.

December up to the present date has been rather cold, but not very unpleasant. The mercury passed below zero for the first time on the morning of the 14th, eight deg., and on the morning of the 15th it stood 10 below, which is very unusual so early in the season. At this time the sleighing is tolerable, with a small amount of snow—some four inches. D. BUCKLAND.

*Brandon, Vt., Dec. 17, 1860.*

SLEEPING AND EATING.—Hall's *Journal of Health* says: "For persons who eat three times a day, it is ample and sufficient to make the last meal of cold bread and butter, and a cup of warm drink. No one can starve on it, while a perseverance in the habit soon begets a vigorous appetite for breakfast, so promising of a day of comfort."

ALL innovation upon established customs is invariably and sturdily resisted, and men are known to fight for their prejudices who would never fight for their country.

*For the New England Farmer.*

### OUR GRANDMOTHERS vs. MODERN LADIES.

MR. EDITOR:—I thought my article in the *Farmer* of the 6th of October was made sufficiently plain to be understood by any one, even that intelligent "Old Bach," who opened the first battery upon the weak fortress of an "Old Spinster." I find, however, that not only the "Old Bach," but "Polly" and "Anna" have been pleased to misconstrue a portion of said article. I can not see why the articles of "Polly" and "Anna" do not conflict more with each other than with mine. It seems that the most offensive part of my article was the sentence in which I mentioned the fact, that our grandmothers were educated as farmers' wives should be educated, not to play on a piano, or make pictures, (I might have said exclusive of everything else,) but to spin and weave, &c. I did not wish to insinuate, by any means, that our grandmothers were an uncivilized set of human beings, mere slaves, and nothing else, but I did mean to say that they were not afraid of work, and were not in the habit of leaving the management of their household affairs with "Biddy" in the kitchen, while they were squandering away their own time over a piano, or some frivolous picture.

They were willing to take their share of the burdens of each day, and bear them cheerfully, without a murmur, and when their husbands came in at night, after the toils of the day were ended, they were met by wives whose countenances wore a pleasant aspect, and who were ever ready to speak a pleasant and an encouraging word; they were capable, too, of giving their children good instruction, because they read the Scriptures more than novels. Our grandmothers could and did read their Bibles, and write a very good hand, too; and boys who were reared and trained by them, seldom contracted vicious habits. How is it with boys raised by some of our modern ladies? Too often the reverse, and for the reason that they too often leave the training of their children with some foreign "Bridget," while they are doing something else.

I do not wish you to understand me to say that all farmers' wives indulge in such a course. Such is not the case. But I believe that nine-tenths of those who are ever finding fault with their liege lords, and those who say the most about hardships borne by our farmer's wives, are those who are indulged as above, and know as much about hard work in the kitchen, as Biddy does about the piano in the parlor. The ideas that I wish to convey in my former article, as well as the present, are as follows:

First, that our grandmothers did not enjoy the advantages of modern inventions, consequently their tasks were much more arduous to perform; secondly, that they performed those tasks much more cheerfully than many of the farmers' wives do theirs at the present day, notwithstanding they enjoy all the advantages of modern improvements; thirdly, they were of sound minds, as a general thing, and although their chance for an education was very limited, they made greater improvements than many modern ladies do with all their modern chances for an education; fourthly, they were better wives, and better mothers,

and better prepared to train up a family of children than many of the whimsical things of the present day; and last, but not least, they were not in the habit of publishing their domestic grievances in the newspapers, for the purpose of making a display of talents. I know this to be a fact, because one of them is the mother of the

"OLD SPINSTER."

*Claremont, N. H., Dec., 1860.*

### THE AIR PRESSURE CHURN.

Among the improvements which an advanced civilization brings to light every day, and which go to bless mankind by exalting still higher that civilization, the farmer may enjoy his full share. He has not yet seen fit to avail himself of many of them, but is gradually bringing them to his aid, as custom or prejudice yields before the palpable evidences which they afford of increasing his profits.



Much more has been done to aid the farmer in the field, than to aid his wife in the dairy room, or kitchen, though she fully appreciates the washing machine, cooking stove, and other culinary and domestic improvements. Here is one, figured above, having a more immediate connection with the business of the farm, and one which we regard as substantial and valuable. We have now had it in use some time, making with it about seventy-five pounds of butter per month.

The first thing which we found in this churn to recommend it, was the neat and substantial manner in which it is made.

The second, the ease with which it is wrought.

The third was the appearance of the butter upon opening the churn; it was lying in one entire mass, and having the right temperature to secure its being worked over with ease and facility. This is an essential advantage, as in other churns it often comes so hard that it is difficult to work it at all. In the *Air Pressure Churn* it has invariably come in a perfect condition to be easily and effectually worked and made into balls, or packed down in tubs.

The fourth was the blue and thin appearance of the butter-milk, thereby indicating that nearly all the buttery matter had been extracted from the cream. We have, therefore, no doubt but this churn will bring more butter from a given quantity of cream than any other we have used.

The fifth recommendation, is the perfect ease with which the churn can be cleaned. It is formed like a keg, with one head out, having no holes, crevices, cranks or dashers in the way. The inside of the keg, or churn, is nearly as smooth as glass, so that with anything like a careful washing, it is scarcely possible for cream or butter-milk to remain attached to it. These two points—the fourth and fifth—we suppose, are gained by the compression of air into the churn, but whether by an increase of temperature, by the introduction of oxygen, or by more effectually breaking the globules which contain the particles of cream, we are not able to say.

The inventor of this churn, is Dr. R. P. WILSON, of New York. He called our attention to it, more than a year ago, and churned with it while we were present at three or four different times—but we saw nothing in those exhibitions that seemed to entitle it to merits not possessed by some other churns. Under this impression, we declined to receive, and test it at that time,—but after seeing the testimony of others in relation to it, and recalling an old maxim, to “prove all things, and hold fast to that which is good,” we put it in operation, and have given the results above.

Since having made trial of it, we have conversed with ALLEN PUTNAM, Esq., who, twenty years ago, was Editor of the *N. E. Farmer*, and who states that he became so thoroughly convinced of its superior merits, that he has been willing to risk his means and reputation in placing it before the public, and in calling their attention to its superior advantages.

We do not recommend an immediate and indiscriminate abandonment of all other churns for this—and this is our rule with regard to all labor-saving machines not fully tested—but that those needing a churn may try this, or that those largely engaged in butter-making shall ascertain its merits, even though they have other good churns in use.

ADDRESS AT THE SAGADAHOC (MAINE) FAIR.—This address, published in the *Brunswick Telegraph*, was delivered before the association, at Topsham, Oct. 10, 1860, by N. T. True, M. D., and is one of the best that we have read for a long time. To most of our readers, the initials, “N. T. T.,” are probably more familiar than the Dr.’s name in full. We have marked for future publication one or two of the common sense sug-

gestions which make up this address. The doctor, who is also editor of the *Bethel, Me., Courier*, is evidently a man of no small observation. “I have yet to see,” he says, “the man in Maine who has enjoyed fair health, who has had a fair chance to make a farm, and who has exhibited a tolerable share of prudence in his affairs, that has not acquired a competency, with which to pass the mellow autumn of life in comparative comfort, surrounded by all the endearments of a quiet home.”

#### CONVERTING BONES INTO SUPER-PHOSPHATES.

If you have not a bone-mill, you must break the bones with sledge hammers, and after with smaller ones, to reduce the bones to as small a size as possible; provide tubs or a brick tank of sufficient capacity, put in the bones, saturate them with hot water—pour in as much as they will absorb, but no more. Pour in sulphuric acid in the proportion of 56 lbs. of the acid to 112 lbs. of dry bones, stir the mass frequently, and in about a week it will be fit for use; first absorbing the mass to a sufficiently dry state for distribution, by mixing with it rich dry earth, bog mould, ashes or peat charcoal in sufficient quantity. As the dissolved bones lose by evaporation, it would be better to put off the process of dissolving until February, or March next; it will then be perfectly disintegrated or decomposed in time for use. If tanks or tubs are not convenient, the process may be effected by saturating the bones on a dry floor under cover, and mixing them up with the acid, as mortar is tempered, and immediately covering up the heap with the drying materials, and leaving to digest for a week or ten days, when it is turned over and thoroughly mixed with the drying materials.—*Irish Farmer's Gazette*.

#### SWEENEY IN HORSES.

Will you tell what you believe to be the best remedy for curing the sweeney in horses, as it is very troublesome to cure when it once gets fairly seated, and is very painful to the horses? A.

*Answer*.—The sweeney is a shrinking of the muscles of the shoulder, usually caused by a sudden strain in drawing, or by alighting hard upon the fore feet after a jump. We have had considerable personal experience with this difficulty in horses. If taken fresh, it is best to bleed the horse in the leg from the vein on the inside of the arm, called the plate vein, which will allay the inflammation; but for an old case, this is nearly useless. Also physic the horse, and apply fomentations upon the shoulder blade, and the inside of the arm. In all cases, take off the shoes, and give the animal rest in a pasture, or on a dirt bottom in a large stall. If the case is not of too long standing, it is well to rub the shoulders with penetrating oils, like oil of spike. Our practice was to rub with a corn-cob, and hemp crash cloth. When once seated, be careful of over-driving and cooling off, as you would for a case of founder. A long rest in the pasture is the best remedy we ever tried.—*Ohio Cultivator*.

For the New England Farmer.

### HAY AND ROOT CROPS--THEIR COMPARATIVE VALUE.

Hay is the chief article of food for stock during the winter season; and, generally speaking, if a sufficiency of good hay is properly fed to stock, they will thrive upon it, and increase in weight and value. But it is not always, nor even usually the case, that farmers have a sufficiency of the best quality of hay to feed to their stock, with no exceptions in the way of coarse fodder, damaged hay, straw, etc.; and in case the latter is fed, or when the usual yield of hay has been reduced by reason of the drought, or other causes, root crops afford a valuable *auxiliary*, whether used in connection with the former, or as a substitute for the latter. Hence it often becomes necessary to know the comparative value of potatoes, carrots and ruta bagas, that farmers may be able to substitute, in part, these roots for hay.

It is becoming more and more the practice of our best farmers to feed out, not only their carrots, turnips, etc., but their potatoes, instead of selling them from the farm to be worked into starch, in the belief that the good of their farms demands it, and that their *purses* in the end will not be the losers thereby; and the more it is practiced, the more convinced are they of the economy and profit of such a course of feeding. Not only is the profit derived from the roots, as such, but the relative value of the hay, as well as that of the roots, is increased when fed together. And it becomes an object, the present season especially, for such farmers as have been deprived of their usual amount of fodder by the drought, to make the best of all such means to keep and improve their stock until the return of grass.

The following table, gathered from reliable sources, shows the value of potatoes, carrots and ruta bagas, the roots usually grown for stock, compared with that of *good hay*.

|                      |              |                  |
|----------------------|--------------|------------------|
| 290 lbs. of potatoes | are equal to | 100 lbs. of hay. |
| 275 " " carrots      | " " "        | " "              |
| 330 " " ruta bagas   | " " "        | " "              |

Again: by allowing 60 pounds to the bushel, of the above roots, we have the following:

|                        |              |               |
|------------------------|--------------|---------------|
| 67 bushels of potatoes | are equal to | a ton of hay. |
| 92 " " carrots         | " " "        | " "           |
| 100 " " ruta bagas     | " " "        | " "           |

By this estimate, with the usual yield per acre, it will be seen that root culture *pays*; a fact of which many a farmer and stock-grower has been convinced by practical demonstration.

*Lynoln, Vt., Dec., 1860. I. W. SANBORN.*

EXPERIMENT WITH SALT.—E. Roberts communicates to the *Philadelphia Farmer and Gardener* the results of an experiment tried a year ago. When a field of an acre of turnips were putting out the third leaf something like one bushel of salt was applied to about one-fourth of the field. A very severe drought succeeded, parching up everything. The turnips did not appear to advance a bit in their growth, except on the portion to which the salt had been applied. Here they did not show the drooping condition so manifest in every other portion of the field. When the

leaves of the unsalted portion were dry in the morning, the salted part appeared moist, as though they had imbibed moisture from the atmosphere. The result was, a much better yield of turnips on the eighth of an acre than on the other portion. The fly did not attack this portion at all, though some of the other parts of the field suffered severely.

### AUTUMN IS DEAD.

BY MRS. H. J. LEWIS.

The lilies beneath the wave are sleeping,  
The vine no more o'er the wall is creeping,  
The withered berries the turf are strewing,  
The leaves are heaped by the wild wind's blowing.  
Autumn is dead.

Where the reapers trod not a sheaf is gleaming,  
Where the asters bloomed not a flower is beaming,  
The grass is gone that in summer even  
Was sprinkled with liquid gems from heaven.  
Autumn is dead.

Grey is the sea with its moan and dashing,  
Grey are the clouds with no sunlight flashing,  
Wildly the sea-bird shrieks o'er the billow,  
Making its foam a toy and a pillow,  
Since Autumn is dead.

Now come the winds from the North, low telling,  
Where the dread winter bides in his dwelling,  
Ready to hush the soft silver ringing  
Of streams that sadly murmur in singing,  
Autumn is dead.

Softly as hush of the pale moon stealth  
A chorus of voices that life revealeth,  
An insect's chirp, or a wild bird calling,—  
A break in a silence else appalling,  
For Autumn is dead.

Quick! strew his grave with the leaves and flowers  
That gladdened his path through the darkening hours!  
Quick with the chant and requiem holy!  
See you not that he lieth lowly,  
Because he is dead?

Dec. 1, 1860.

*Transcript.*

### DOINGS OF THE CATTLE COMMISSIONERS.

On Thursday week, parts of the two boards of the Cattle Commissioners of the Commonwealth met at Mr. Chenery's farm in Belmont, to kill the remaining portion of the 27 head purchased some time since by the Cattle Commissioners of Mr. Chenery. On the 25th of September they killed 4, on the 11th of October they killed 7, on the 16th, 6, and on the 13th of December, 4, including one in charge of the Medical Board, and returned 3 to Mr. Chenery for the same price they had agreed to pay him. Three animals still remain in charge of the Medical Board, and Mr. Chenery has now 13 head, including "Beemster," one of the cows obtained by the last importation, which has never been sick. The injunction of isolation still remains in force in regard to the remnant of this herd that numbered near 70 head a year and a half ago. Of these 27 died of the disease, and 23 have been killed by order of the Commission. One of the Commissioners said that the remaining 16 head should all be killed.

Of the animals killed on Thursday week, 3 were pronounced diseased with pleuro-pneumonia by



the Commissioners, and one perfectly well. The cyst or encysted matter in the lung of one of these animals was about the size of a common shell-bark walnut, the matter being of a caseous appearance, and devoid of scent. In the other, the cysts were larger. The third case showed dark specks, whether cysts the writer did not have opportunity to observe, as the animal was killed before his arrival. The fourth had as clean a pair of lungs as a Jew would wish to see, in case he desired the flesh of the animal for meat.

In view of a statement made at the late meeting of the Ipswich Farmers' Club in England, and published in a late number of the *Cultivator*, that "In the case of the cows which died previous to calving, (of 'lung disease,' or pleuro-pneumonia) the lungs of the fetus were found diseased; where the cows died after calving, the calves died in a few days from the disease." This has been regarded by some as going to establish the hereditary character of the disease, called pleuro-pneumonia.—*Boston Cultivator*.

#### EXTRACTS AND REPLIES.

##### HUNGARIAN GRASS.

I wish to inquire in regard to the Hungarian grass? What soil is it best adapted to—how much seed does it require to the acre—where can it be obtained, and at what price?

How would it do to turn over a piece of greensward in the spring, a light soil, which is filled with witch grass, and sow it with this grass for fodder?

SUBSCRIBER.

*Bath, N. H., Dec., 1860.*

REMARKS.—A good Indian corn soil is suitable for the Hungarian grass. Six quarts of seed are sufficient for an acre. It can usually be obtained at the seed stores for from \$3.50 to \$5 a bushel.

Try the experiment with the greensward by plowing deep, harrowing until it is fine and manuring with fine compost—it will probably do well.

##### CUTTING TIMBER.

With regard to the time of cutting timber we have the following testimony from one of our oldest subscribers:—

Obed Baker, West Dedham, has cut timber for seventy years, got out frames for houses, &c.; cut pine timber at almost any time of the year—cut in the old of the moon. Has also cut oak for ship timber and brought in some for the Constitution—"Old Ironsides." Says, peel bark last of May, or first of June, in the new moon, when it will strip freely,—the wood of such trees would turn black and become sap rotten, but the same trees if cut in the old moon would be perfectly sound. Bushes cut in the old of the moon, December, die, and will not sprout. He has red cedar posts that have stood for one hundred years, and are still sound in the ground. His experience shows that the old of the moon is the time for cutting timber to preserve it. Posts set small end down outlast

those set the other way. A little salt put in helps to preserve them. It is a good plan, also, to char the ends.

#### HAY FOR A HORSE—COMPARATIVE VALUE OF HAY AND GRAIN.

You know it is taken for granted that editors can answer all sorts of questions, at least, I take it so in this case, for you have told me once or more just the very things I want to know now, but like other dull scholars, I have forgotten, and I can't find the papers now. I wish to know how many pounds of good hay, cut up and mixed with four quarts of oats ground, (or their equivalent in some other grain,) is necessary per day, to keep a horse well, with but little work; weight of horse, 1100 lbs. Also, as the price of hay with us is high, and some kinds of grain are not very high, I think a table showing the comparative value of the different kinds of grain, hay, &c., if re-published in the weekly *Farmer*, would be thankfully read by many, as well as by

Your humble servant, J.

*McIndoes Falls, N., Dec., 1860.*

REMARKS.—It is impossible to say with exactness how many pounds of hay are required for each of ten horses, mixed with four quarts of oats. We have two horses standing side by side, and of nearly the same weight, one of which is not satisfied with much less than fifty per cent. more feed than the other, both doing the same amount of work. You will find a difference something like this in many stables. Is it not so with men and women. Some horses, doing but little work, will thrive well on ten pounds of hay and four quarts of oats, daily, while others would require fifteen pounds, or more of hay, beside the oats.

Strict regularity in feeding, accurately weighing the hay, with a close observation of the horse in regard to flesh, spirits, and the appearance of the hair, will soon enable you to judge with sufficient correctness as to how much hay he needs.

See table by I. W. SANBORN, in another column, on the comparative values of hay and grain.

#### HOW CAN MEADOW LAND BE IMPROVED?

I wish to get some information through the *Farmer* that may be of service in treating meadow land. A tract of low meadow land recently came into my possession, which, it is said, used to be productive, but now moss having overrun it and choked out the grass, it yields but moderately. I suppose it will not do to plow it, as it is overflowed most all winter, if not quite all that season, and the soil would probably be washed away. Can some one who is acquainted with such land suggest some plan by which the moss may be destroyed and the meadow brought up to its original productiveness?

A SUBSCRIBER.

REMARKS.—Overflowing the land will not injure it, provided there is not a strong current of water over it. The ditch, plow and manure, judiciously applied, will reclaim any soil, however obstinate.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 9.  
SHRIKES.

General Remarks on the order INSESSORES—The Great Northern Shrike, or Butcher Bird—American Gray Shrike.

In our brief notice of the birds of New England, we now arrive at the second order of the class *Aves* or Birds, the INSESSORES, or *Perching Birds*, at once the most numerous and interesting, the birds belonging to it nearly equalling the numbers of all the other orders collectively; and among such a multitude we may well look for a considerable diversity of forms and modifications of structure, with a corresponding difference in habits and dispositions, suited to the exigencies of the different tribes; yet a few general characteristics prevail throughout the order; and though species may be found in it differing widely in structure and habits, the connection between them is so finely graduated by the intervening forms that no break is observed in the great natural chain, but on the other hand, it is often difficult for systematists to define the limits of their different groups. The most prominent characteristic of the order is the power of grasping with the feet, or *perching*, as the name of the order indicates, which is possessed by all its members; the power of flight is also possessed by all in a perfect degree, and in many groups is highly developed; and from its possessing in general the greatest united perfections of the properties of a bird, it has been taken as the typical order of the class. Although the great part of the birds of this order are of small size, yet they are the most efficient in ministering to the pleasures of man, by their lively presence, animating our fields and forests with enlivening song, gaiety of colors and sprightliness of action, holding in check the myriads of devastating insects that would otherwise desolate our fields and render futile our labors. It is true that a few species are considered noxious at certain seasons, from their preying somewhat upon our fruits, and sprouting or immature grain, but these annoyances can generally be avoided, by proper precautions, the same birds making ample remuneration at other seasons for the little injury they may do. All the true song birds are embraced in this order.

In characterizing the Insessores, Cuvier observes: "They have neither the violence of the Birds of Prey, nor the fixed regimen of the Poultry and Water-fowl; insects, fruit and grain constitute their chief food, which consists more exclusively of grain, as the beak is stouter and stronger, and of insects, as it is more slender. Those in which it is strong even pursue other Birds." For greater convenience naturalists have divided this extensive order into five *tribes*, or *sub-orders*, basing their division upon natural characteristics, generally upon the form of the bill. The first sub-order is that of the DENTIROSTRES or *tooth-billed* birds, in which the bill is more or less notched towards the point, embracing the *Shrikes*, *Flycatchers*, *Thrushes*, *Tanagers*, *Warblers*, &c.; in short, a large part of the insectivorous birds, though many also feed considerably upon soft fruits. The other divisions are, the CANIROSTRES, or *cane-billed* birds, embracing the *Crows*, *Starlings*, *Finches*, &c.; the SCANROSTRES, or *climbing* birds, including the *Parrots*,

*Woodpeckers*, *Wrens*, *Creepers*, *Nuthatches*, *Cuckoos*, &c.; the TENUIROSTRES, or *slender-billed* birds, embracing the *Humming-Birds*, *Sun Birds*, *Honey Suckers*, the gorgeous *Birds of Paradise*, &c.; and the FISSIROSTRES, or *deft-billed* birds, this name from their wide mouth, containing the *Kingfisher*, *Night Jars*, *Swallows*, &c.

Systematists differ considerably in their views in regard to the importance, magnitude and relations of the different groups; the ingenious arrangement of Mr. WILLIAM SWAINSON, a well-known and erudite naturalist, seeming as well based in nature as any, will be chiefly followed in these sketches, particularly in this order; but space does not allow, nor necessity require, at this time, an extended discussion of its principles. The *Dentirostres* are divided by this gentleman into five families; the Shrikes (*Laniidae*) the Thrushes (*Merulidae*), the Warblers (*Sylviidae*), the Chatterers, or (more properly) the Fruit-eaters (*Ampelidae*), and the true Flycatcher (*Muscicapidae*.) Each of these families are also divided into five lesser groups or *sub-families*, a large portion of which are unrepresented in our fauna. Of the first family, *Laniidae*, we find representatives of two of its groups; the *Laniinae*, true shrikes, and the *Tyranninae*, embracing our Flycatchers; the true Flycatcher (*Muscicapa*) as restricted by Cuvier, Swainson and others, being confined to the eastern continent, though in the system of Linnaeus, the American Flycatchers range in the genus *Muscicapa* of that renowned naturalist.

It is everywhere observable in nature, that the transition from one class of animals to another is by minute and beautiful gradations; thus in the *Laniidae* we meet with birds possessing the intrepid spirit and predacious habits, inasmuch as they subsist upon living prey, of the rapacious birds; and in the true Shrikes the bill is strongly toothed, as in many of the birds of prey, and they feed more or less upon living birds. The Shrikes are found generally in limited numbers, in all parts of the world, but they more particularly abound in Africa and the warmer parts of Asia; North America possesses but five species, and only two are found in New England, but one of which can be mentioned as a regular visitant. Nearly all the species are noted for their cruelty and tyrannical disposition, some foreign species, as the *Lanius collaris* of South Africa, which has become proverbial for its cruelty, pouncing at every opportunity upon small birds, locusts and other large insects, immediately impaling its victim on a thorn, leaving it to dry in the warm and arid atmosphere; thus pursuing its murderous career throughout the day, apparently from a love of mischief rather than a desire for food. From their cruelty, the Shrikes have, by some naturalists, been classed with the rapacious Falcons.

The species most common to New England is the noted BUTCHER BIRD, or GREAT NORTHERN SHRIKE, (*Lanius borealis*, Vieill.) which regularly descends to us from Canada and more northern regions in the latter part of autumn, migrating as far southward as Virginia on the sea-coast, and Natchez on the Mississippi, in the interior, a few remaining with us throughout the winter. On the return of spring they retire to the north to breed, or to the mountainous parts of the Middle and Eastern States, frequenting, at this season the deepest forests, where they construct a large, firm

nest, of dry grass lined with feathers, generally in the fork of a small tree, not far from the ground. The eggs, four to six, are of a pale cinereous tint, thinly marked with rufous spots and streaks at the greater end. They are bold and energetic birds, preying upon small birds and various kinds of insects, particularly grasshoppers, which it has the curious habit of impaling upon thorns, without apparent design, unless for mere diversion. It is always active and persevering, often seen pursuing birds of quite large size, holding frequent contests with the Blue Jays, which seem to rather fear it, as well as detest it. It has been known to pursue and finally strike to the ground by a single blow, the common Mourning Dove, (*Ectopistes Carolinensis*.) and other birds larger than itself; and I have seen one repeatedly pursue the common domestic Pigeons, evidently with the same intentions. Its manners somewhat remind one of a small Hawk, and its audacity is rarely equalled by any of the Falcon tribe, it having been known to attack birds in cages, under the immediate protection of man. Its flight being strong and well sustained, it darts upon and kills small birds with ease, and drives all larger ones from its precincts, yet its chief food is believed to be insects, especially in summer. It possesses a variety of low, pleasing notes, and has the power of imitating the alarm notes of many small birds, and thus sometimes attracts an anxious company around it, soon darting upon one of the number, and filling the air with the cries of a real victim. Its sagacity is often observable in other ways. These birds are at no time very common, and consequently are not generally known.

The length of this bird is ten inches, extent thirteen; plumage above, pale cinereous; wings black, barred with white, and possessing a spot of white on the primaries; beneath, nearly white, sometimes a little dusky, with fine, transverse, curving lines of brown; a patch of black extends from the nostrils backwards to the middle of the neck; the young for several months, and sometimes the female, are quite ferruginous on the upper parts.

The other New England species is the AMERICAN GRAY SHRIKE, (*Lanius excubitorides*, Swain.) is very rarely met with in the Northern parts of New England, but was once seen by Nuttall near Boston. It inhabits the more northern parts of the continent, being still more boreal than the preceding species, to which it is closely allied in size and markings, and the habits of the two are said to be precisely similar.

The other North American species are, the *Loggerhead Shrike* of the Southern States, (*L. Carolinensis*, Wils.) which feeds much upon mice, darting upon them like a Hawk; the *White Crowned Shrike*, (*L. elegans*, Swain.) inhabiting the country around Hudson's Bay; and the *Nookka Shrike*, (*L. Natha*, Penn.) found in the north-western parts of the continent. J. A. A.

**MAKING VINEGAR.**—Vinegar, according to a writer in the *Genesee Farmer*, is cheaply made. We republish his recipe:—To eight gallons of clear rain water, add three quarts of molasses; put into a good cask; shake well a few times, then add two or three spoonfuls of good yeast

cakes. If in summer, place the casks in the sun; if in winter, near the chimney, where it may warm. In ten or fifteen days add to this liquid a sheet of brown paper, torn in strips, dipped in molasses, and good vinegar will be produced. The paper will, in this way, form what is called the "mother," or life of vinegar.

#### PREPARATION OF BONES FOR USE.

The best and cheapest method of preparing bones for manure is, first, to boil them in strong ley, a few hours, to extract from them the animal matter, or what would be more convenient, perhaps, break them as fine as convenient, and put them into a tub of ley to remain there during pleasure, until the animal matter is all extracted and incorporated with the ley. The mineral part of the bones will now be found very friable and easily pulverized. They should be rinsed clean, pulverized, and put into another tub or trough. Apply to them some diluted sulphuric acid, in the proportion of one of acid to five of water. Stir them frequently, and in a short time, they will be entirely decomposed and fitted for use. These two masses, being equally rich in the elements of fertility, the one of ammonia and the other of phosphorus, are equally valuable as fertilizers, and adapted to any and every variety of soil that may be deficient in these elements, and equally necessary for the healthful maturity of every growing plant, whether of grain, grasses, fruits, or roots. I now advise a mixture of these two masses with the general compost, to secure a general diffusion of them upon the different fields to be manured. My reason for the general diffusion of these masses, upon the different fields is, first, every plant needs them. Secondly, the farmer's resources, in this line, will be mainly within himself. This will be true of those that live at a distance from villages and cities. Their resources must be small. Thirdly, the elements of the bone, both animal and mineral, were taken from the different fields, and should, therefore, be returned to the same fields. To keep up the fertility of each field, it is necessary to return to it annually the same elements that are taken away. The farmer may secure a larger crop of any kind, on any field, by robbing other fields of the same elements of fertility to enrich that one. But such a policy would not only be bad, but ruinous if pursued.—*Country Gentleman*.

#### RURAL TASTE.

To owners of very small places, who still wish them to look well, the safest council is, do not plant large trees,—not one even; keep your grass continually shorn, your hedge evenly trimmed, your little flower-bed in perpetual order. Set out such flowering shrubs as will from spring to autumn give you a constant renewal of blossoms. So continually are new varieties now introduced from all parts of the world by scientific botanists, that it is quite unnecessary to name a choice; and, when differences of climate and soil are to be considered, much better advice can be given on the spot by a practical seedsman, than by a review destined for all latitudes. Still of hardy ornamental shrubs we may safely suggest the *Althæas*, the *Deutzias*, the *Persian Lilac*, the *Py-*

rus Japonica, and especially the Moutan Peonies and the Weigelias, the last two introduced lately from China, by Mr. Robert Fortune. Evergreen shrubs, on the contrary, we cannot recommend; unless the cultivator has ample space and shade for them, they will not, in spite of all that has been said in their favor, stand our New England autumn and winter suns, but turn brown and dingy when we most want them bright. The flower-garden in its perfection is of course unattainable without great care and expense; but five dollars a year, judiciously laid out in seeds and bulbs, will, from one tiny plat, yield, from the first crocus to the last chrysanthemum, a perpetual joy.—*Christian Examiner.*

*For the New England Farmer.*

### CITY AND COUNTRY.

BY JUDGE FRENCH.

It is rare that we "talk politics" in the *Farmer*, but just now, when a new administration is coming into power, and when those who have so long been *Outs*, are about to be *Ins*, there may be occasion for a short sermon to young farmers, as to their duties to their country and themselves. With a new administration, comes the idea of change, and our young men look about them for some new road to fortune. It would be difficult to estimate how many of our readers are just now meditating some change in their affairs, how many are hoping to get away from their farms and workshops into easier and more lucrative positions. How many of you have not already been asked to use your influence to get some friend an office under President Lincoln, and how many are spending watchful nights in the anxious hope that some clerkship or Custom-House place may fall to his share in the grand division of offices!

A mania for getting out of the country into the city has always possessed the young, while business men in the city are carefully investing their money, hoping by-and-by to purchase a home in the country, and spend yet many peaceful years on a farm. Of the disappointments which await the latter in their ignorance of the management of the affairs of the farm, we will not now speak; but content ourselves with some words of warning to the former.

Don't leave home for an office in the city! There is no place which you are fit for that is worth your taking! It is true a salary of fifteen, ten or even five hundred dollars a year, just for four or five hours daily work in a comfortable office in Washington or Boston, seems very comfortable to a man who lives on a milk-farm, and rises at three or four o'clock in winter mornings, to milk a dozen cows, and works all day long, and barely supports his small family at that.

We all know men who have left their wives and little children, or younger men who have

broken ties only less near, and gone to distant cities, to hold some government office, really believing they were doing better for themselves and those most dear to them, than by pursuing their regular avocations at home. Possibly this may be so, but usually it is not.

If you take an office, of course you expect to wear a collar with your master's name upon it! You are somebody's subordinate, unless you chance to be President, and then you are everybody's servant! You are to talk, and think, and vote, as the head of your office does, and pay a per centage of your salary to carry out his political schemes. You live, like the king of old, with a sword over your head suspended by a single hair; and must soon lose your manhood or your office, and probably both. The longer you remain in place, the less are you fit for any position which requires energy, and self-reliance.

And especially, young man, if you have a wife, make no arrangement which shall separate you from her. You have vowed to share your fortune with her, for better or for worse, and though she may, with breaking heart, submit silently to what you decide to be best, no money nor earthly prosperity, can compensate for a long separation. If your new position will not maintain you together, it is a temptation of the adversary, and not a good Providence, that calls you away.

Again, the comparative expenses of country and city life are little understood by farmers. They are not apt to appreciate how much the farm contributes to their support. We often hear persons in the country talk in this wise: "It cannot cost much more to live in Boston than here in the country. Flour and groceries are cheaper in the city, and so is clothing of all kinds, and meats of all descriptions bear about the same price as here. Fuel cannot be much more expensive, because coal is far cheaper in the city, and coal is about as cheap as wood, already, fifty miles inland. To be sure, rent is a little higher, but not much,"—and so the temptation to desert the soil for any little salary in the city is very great.

Now this sort of estimate is far aside from the truth, not so much in the details given above, as in the deductions from them. Let us look at a small farmer, as we know them in great numbers in New England. He has a fifty or one hundred acre farm, with a dozen or twenty head of cattle, a horse or two, a small but comfortable house, schools for his children the greater part of the year, the meeting-house and lecture-room not far off, and good roads and good neighbors.

He works hard, lives prudently, and adds but little to his substance. He is a man, self-reliant, independent, as good as his neighbors or anybody else, commands his own time, and is no man's servant. He thinks, talks and acts according to

his own convictions of right. He is connected with the parish, perhaps the church, takes an interest in the schools, in town affairs, in county affairs, in State affairs. He is a part of the machinery of society, identifies himself with its interests, and feels himself, as he is acknowledged by others, to be of some importance. His opinion, his silent example, even, exerts an influence on all around. He is, in the best sense, a Freeman.

Now this man has more to lose than he is aware of, by a surrender of his position, and becoming a resident of a city.

As to the expenses of his family—he will find that two or three hundred dollars a year will not give him the rent of a house so comfortable as his own; that although flour and sugar may cost him no more per pound, it will require a large amount to pay for the milk and eggs and butter and lard, and vegetables and meats, that used to come so easily from the farm. He will find, that in every direction there is an increase of expense. The incidentals, of which little account was made before, assume importance. Everything costs in the city. You cannot be born, or be married, or be buried, without frightful bills to pay for it. A free lot in the old graveyard, or a lot for a small sum in the rural cemetery, gives the country resident and his loved ones a resting-place with his kindred and friends, while a spot in Mount Auburn, with respectable adornments, can be provided only at the cost of hundreds of dollars. It is enough for any man to dress and live as well as his neighbors, and he cannot easily do less. The general style of the city is more expensive than that of the country. The last year's coat, or bonnet, or dress, might appear well enough in the village church, while in the city it would be quite shabby.

But money is not the chief end of man. Children of the middle classes are better bred in the country than the city. They have better air, better exercise, better health, better morals, and better intellects. Children of the rich, who live in Beacon Street, and who have gymnasiums and riding-schools, and money to buy in the city the blessings which the country gives to all alike, may perhaps lose nothing by a city life. These luxuries are not, however, for the common people.

We are progressive, and in favor of change when it is for the better, as it often may be. We designed merely to give a word of caution to those who may be looking to politics for a chance to escape from the country to the city. To such, in good time, we would repeat the old-fashioned saying—"Let well enough alone."

**WORKING BUTTER.**—A correspondent of the *Homestead* says a thorough working of butter is

better done by taking the butter in the hand in lumps of three or four pounds each, and slapping it against a hard surface, than by using a ladle, as is generally practiced in New England dairies.

#### EXTRACTS AND REPLIES.

##### CRIMSON CLOVER.

I wish to inquire if the crimson clover can be sown with grain as other grasses, or does it have to be sown every year? Where can I get some seed?

C. F. LINCOLN.

*Woodstock, Vt., Dec., 1860.*

**REMARKS.**—A few weeks since we illustrated the "Scarlet or Italian Clover," accompanied by a brief notice. On an examination of some of our English books we find a pleasant account of it. In a work on "Farm Crops," by Professor Wilson, of Edinburgh, it is stated that the Scarlet Clover is an *annual* plant, having a habit of growth and an appearance which readily distinguish it from any of the ordinary clovers. The stem is upright and branched; the leaflets broad, nearly round, and with the stem covered with hairs; the flower-stalk rises to some height above the last leaves, and is surmounted by an oblong cylindrical spike, tapering towards the top, and consisting of bright scarlet or crimsoned colored flowers, which give the crop a very beautiful appearance. It is extensively cultivated in the sheep-farming counties of Scotland. The practice there is to sow it on stubble land as soon as the grain crop is off, broadcast, and harrowed in, at the rate of 12 to 20 pounds per acre. Owing to its rapid and vigorous growth; it gets firmly rooted in the soil before the winter sets in, and in the spring furnishes an abundant supply of green food for cattle; or if allowed to stand for a hay crop, it comes into flower early in June, when it may be cut. The product is liberal, and the hay as well as the grass is generally relished by cattle.

Since the publication of our drawing, many inquiries have been made in relation to this clover, and a disposition is manifested to employ it as a fodder crop. We suggest that it will be well to experiment on a moderate scale with it, until it is better understood.

We do not know where the seed can be obtained, now—but if there is a demand for it, seedsmen will soon obtain a supply.

##### RINGBONE ON HORSES.

I have a yearling colt which I think has a ringbone growing on his fore foot; can you inform me what will cure it?

THOMAS HOBSON.

*New London, Dec., 1860.*

**REMARKS.**—Ringbone is a difficult matter to deal with. We lost an old, but very fine horse, last year by ringbone. Mr. W. H. CHAFFEE has communicated to the *Rural New-Yorker* the fol-

lowing: "Make a bag of strong linen cloth, about two inches broad, and eight inches long; fill it with copperas, and tie it on the foot just above the ringbone, and wet it twice each day. Keep it on about four weeks."

Mr. A. BRIGGS, of Deerfield, Mass., states that he can cure ringbone in seven cases out of ten.

A STEAM APPARATUS—RAPE CAKE—MALT COMBS  
—TOP-DRESSING GRASS LAND.

Your good-nature in answering questions encourages me in framing a few interrogatories.

What is a steam apparatus; and how is it contrived; and where can one be seen or purchased? Such an one as Mr. Horsfall, the Scotchman, (as described by Flint.) probably used.

Can rape-cake be procured, and where? Malt combs also; how are they obtained?

What is the most approved way of breaking up green sward to cultivate and lay down again to grass? One of my neighbors says, turn the sod the thickness of two inches, in the autumn; manure the next spring, and harrow it in.

Another says, plow two inches, but after spreading manure, (also in the autumn.) Top dress in the spring and harrow it in.

Another yet says, it will pay to top dress, then plow eight inches. In the spring cross plow ten inches, then top dress, harrow in. It is to be understood that a respectable quantity of manure is used.

When is the best time to top dress mowing, i. e. when will the manure benefit the land most, just before snow in the fall, or just after snow in the spring?

Very short answers will do.

Yours,

C. T. S.

Harvard, Dec., 1860.

REMARKS.—*Steam Apparatus.*—A steam apparatus for steaming food for stock consists of a small boiler and force-pump, with some leading pipe and a large feed-box in which to steam the fodder. Mr. WILLIAM BIRNEY, of Springfield, and Mr. H. H. PETERS, of Southboro', each have one in operation.

*Rape Cake and Malt Combs.*—It is hardly probable that the first of these articles can be obtained, as the rape is not cultivated here. Malt combs may be obtained at breweries in the cities.

*Laying Sward Land to Grass.*—Soils vary so much that no one practice will suit them all. If you do not wish to cultivate the land, plow 8 or 10 inches deep, the last of August, manure liberally with *fine* manure, and you will not fail of satisfactory success. Top dressing and plowing in the autumn and then plowing, top dressing and harrowing in the spring, would be a thorough process, but rather an expensive one—although the oats or other crop sowed with the grass seed would partly pay the cost, but at the same time exhaust the land.

*Top Dressing Grass Land.*—No one can say with absolute certainty what the best time is

to top dress grass land. If we could do just as we please, we should top dress grass land as soon as the hay is carted off in July. It is essential that the manure should be very fine. It is better to apply manure to grass land in the fall, because it injures the surface to go over it in the spring.

COUNTY SURVEYS.

I have noticed your commendation of Mr. Geddes' survey of Onondaga county, N. Y., as published in the N. Y. Transactions for 1859. If our Board of Agriculture could bring about a like survey of each of the counties in our own State, it would be doing a service worthy of everlasting remembrance. As their meeting is adjourned to the 8th of January, a day somewhat memorable in our history, I trust you will pardon this suggestion.

*Note.*—One of our most intelligent citizens is now engaged in preparing a geological survey of this county, which, I trust, will be forthcoming the present year.

ESSEX.

December 24, 1860.

AUSTRALIAN OATS.

I wish to inquire if the Australian oats, so called, have proved more profitable than our common oats? A Mr. Lincoln, of Woodstock, advertised them two years since for one dollar per bushel, put up in bags and delivered at the station. A man in an adjoining town is now asking \$1.50 or \$2 a bushel, and I for one don't like to pay that, if my Woodstock friends are feeding them out for what they are worth to their cattle. If this inquiry induces any one to advertise, I hope he will be prepared to furnish them unmixed with other oats, and free from foul seed.

W. I. SIMONDS.

HOUSE PLANTS.

I want to get some information in regard to destroying lice on house plants.

E. P.

Centre Brook, Conn., 1860.

REMARKS.—Dissolve half an ounce of bitter aloes in a gallon of water, and syringe the plants both above and under the leaves.

"THE SON OF A FARMER."

It is impossible for us to give our young friend the advice he asks without a more minute knowledge of his circumstances, tastes and habits of life. He must consult some judicious friends who know him, as to the pursuit he should choose.

VETERINARY SURGEON.—We learn that Dr. GEORGE H. DADD, so long a distinguished Veterinary Surgeon in this city, has removed to Cincinnati, for the purpose of establishing a Veterinary School, and of practicing the science of Veterinary Medicine and Surgery in that city. Dr. DADD is skillful and devoted to his profession, prompt in attendance and courteous in manner. We wish for him a wide sphere of usefulness.



THE APPLE PLUM.

The beautiful engraving which we give above is an illustration of the *Apple Plum*, which we suppose is a comparatively new fruit. During the last summer, our Mr. *TOLMAN*, of the *Farmer*, visited the grounds of his friend *VANDINE*, at Cambridgeport, to look at his fruits, and to select some for illustration. Among others—some of which we have already given—he was attracted to the apple plum in consequence of its abundance upon the tree, and the fairness and beauty of the fruit and foliage. From the specimen which he brought away, the above engraving was drawn.

Several modern fruit books were examined before we could find any account of this fruit; but in the new edition of *Downing* we find the following:

That the apple plum is “from the garden of *D. U. PRATT*, Chelsea, Mass. Fruit medium, roundish, flattened, a little swollen on one side, suture medium. Skin reddish purple, with a blue bloom and light dots. Stalk short and stout, inserted in a broad, deep variety. Flesh greenish-yellow,

a little coarse, sweet, sprightly, with a considerable austerity of the skin. Adheres partially to the stone. Ripens first of September.”

Mr. *Vandine*, who has a large variety of plums, and meets with better success in their cultivation than any other person with whom we are acquainted, classes this as among the good fruits, though not first class; its leading merits are its abundant bearing, and the vigor of the tree.

**CORN.**—We have heard some complaints that corn does not dry well this year, in consequence probably of the effects of early frosts. The *New Hampshire Journal of Agriculture* says:

“Some of our farmers have placed a stove in their corn houses, and by keeping up a good fire they have very much hastened the process, and prevented further injury.”

**SHELL LIME.**—Shell lime is very superior to stone lime for agricultural purposes, as it contains considerable phosphorus. Wherever it can be obtained, it should always be preferred by farmers.

## HOME TREATMENT OF DIPHTHERIA.

An article appears in a leading New York journal upon the origin and cure of the Diphtheria, which we have not room to copy at length, but which seems to us to present so easy and reasonable means for lessening the sufferings and promoting the cure of children or adults when attacked by this terrible disease, that we give below a summary of its more prominent statements. The line of distinction between Croup and Diphtheria is drawn as follows :

This disease, though in many respects resembling croup—and in certain others, quinsy, is distinguishable from both by certain well-marked characteristics. Like croup, it is accompanied by the formation of a false membrane in the windpipe, which, if left to itself, accumulates till the air-passage is closed and death ensues. But the false membrane of croup is an exudation of natural lymph from the vessels of the mucous membrane stimulated to excess by high febrile condition of the tissue. While on the other hand, Diphtheria is scarcely ever febrile in its pathology, and its pseudo-membrane is the result of a *sloughing off* rather than an *exudation* of the mucous coating. Croup belongs to the inflammatory type of diseases—Diphtheria, save in exceptional cases, does not. In croup the breath of the patient is usually untainted. In Diphtheria the breath is characterised by a peculiar and sometimes almost intolerable fetor. The lymphatic discharges of croup are seldom acrid. The discharges from the nose and mouth of a Diphtheritic patient ichorous and excoerating to the highest degree. Croup is not particularly prostrating to the general strength of the person attacked by it. Diphtheria is invariably accompanied by extreme debility, and a loss of muscular as well as nervous tone, which often continues for months after the immediately dangerous symptoms have been overcome. Finally—Diphtheria is contagious—Croup is not.

As to the treatment of Diphtheria there are therefore two ends to be kept in view—

1st. To evoke and sustain all the natural vital forces of the patient.

2d. To rid the air-passages of the false membrane.

For the first object strong beef tea is recommended, and the sesquioxide of iron has been most advantageously employed. But as to the second end, the method lately discovered by Dr. L. A. Sayre of New York, is what seems to us particularly worthy of note for the home treatment of the sufferer. Finding that the discharge from Diphtheria, as expectorated, would remain in a liquid state in a condition of sufficient moisture and warmth, it occurred to him that if from the first stages of the formation of the false membrane a hot and humid atmosphere could be kept in contact with it, it would remain soluble and be easily ejected through the nose and mouth like common mucus. After trying several ways of

accomplishing this object—there being objections to the vapor bath on account of its relaxing effect upon the system,—Dr. S. finally adopted the following method, which is certainly well worth noting down in every family :—

Having put the patient in a tightly shut room—he had a flat iron heated to as near the white heat as possible. He suspended it over a pail in the sick-room, and kept the attendants pouring water on it till it ceased to evaporate every drop that came in contact with it. As soon as the iron was cooled down to such a degree that any surplus of water remained unevaporized, he replaced it with one freshly heated. He thus kept the room as full of steam as was consistent with comfortable breathing—and at a temperature of 80° F. This process was continued for several hours—during which not only the freshly sloughed membrane was constantly being expelled in liquid form through the nose and mouth, but membrane previously indurated in the trachea became soluble and was ejected in like manner. Meanwhile he kept up the strength of the patient by the above referred to means of beef and brandy.

The result of this treatment was an entire expulsion of the slough—and eventually, the complete cure of a case which had previously been abandoned as too desperate for even the dernier operation of tracheotomy.

The utmost care of the patient for weeks after the immediately dangerous symptoms have disappeared, is necessary to prevent a subsidence into the diphtheritic state. Even where there is no return of the sloughing tendency, the general prostration of the system is usually so extreme, that the most nourishing tonics, and stimulant treatment, is called for to ward off a naturally supervening attack of typhoid or low nervous fever—rapid decline—or chronic debility. There is, perhaps no form of disease known to the children's practitioner, in which skillful hygiene and home-treatment is more imperatively demanded to follow up and perpetuate the results of medical effort. If possible, the greatest care must also be taken during the period of fetid discharges to separate the remaining children of a family from the diseased one, for, as we have above observed, this stage of the disease is quite infectious.

We notice that Diphtheria is again beginning to manifest itself as an epidemic in some of the rural districts of New York and the neighboring States. The words we have said may be of still more use in a city like ours, where life is so closely packed—infection and death so easy. But of these latter evils there is no need. Cure is now measurably simplified—prevention simpler still.—*Country Gentleman.*

HOW TO THROW AN OX.—Mr. L. Hendrick, in the *Genesee Farmer*, thus describes a simple method practiced by him on one occasion when he wished to extract hedgehog quills from the animal's hind foot: The ox was first placed on smooth ground, and the left, or near side, fore foot tied fast to the leg above the knee. Then a rope was tied around the ankle of both the off side feet, and two men standing on the near side, pulled gently on these ropes, at the same time crowding against his side. A man was stationed



at the off side of the animal's neck, to attend to his head while coming down. The ox seeming to fear a fall, readily dropped on his knees and down upon his aide. The ropes were then held securely, and the quills easily extracted with a bullet-mold for nippers.

#### IF WE KNEW.

If we knew the cares and crosses  
Crowding round our neighbor's way,  
If we knew the little losses,  
Sorely grievous day by day,  
Would we then so often chide  
For his lack of thrift and gain—  
Leaving on his heart a shadow,  
Leaving on our lives a stain?

If we knew the clouds above us,  
Held by gentle blessings there,  
Would we turn away all trembling  
In our blind and weak despair?  
Would we shrink from little shadows  
Lying on the dewy grass,  
While 'tis only birds of Eden,  
Just in mercy flying past?

If we knew the silent story  
Quivering through the heart of pain,  
Would our womanhood dare doom them  
Back to haunts of guilt again?  
Life hath many a tangled crossing,  
Joy hath many a break of woe,  
And the cheeks tear-washed are whitest;  
This the blessed angels know.

Let us reach into our bosoms  
For the key to other lives,  
And with love toward erring nature,  
Cherish good that still survives;  
So that, when our disrobing spirits  
Soar to realms of light again,  
We may say, "Dear Father, judge us  
As we judge our fellow-men."

#### AGRICULTURE AT NEW HAVEN.

Arrangements have been made to continue the *Yale Agricultural Lectures* at New Haven this winter, and they are to commence in February next. Among the gentlemen who are to take part in them, are—

On *Pomology* and kindred subjects, Messrs. WILDER, GRANT, BARRY and PARSONS.

On *Farm Crops, Manures, &c.*, Messrs. QUINCY, BARTLETT, FRENCH and TUCKER.

On *Science*, Messrs. SILLIMAN, JOHNSON, EATON and DADD.

On *Domestic Animals*, Messrs. MORRIS, HOWARD and DICKINSON.

During the last week of the course, four lectures will be given on the *subjugation and education* of the Horse, accompanied with demonstrations upon the living animal.

The course will commence February 5, and continue through the month. Three lectures will be given each day, and the intervals of time occupied with discussions. Persons desiring more information than the above gives, may obtain it by addressing Professor JOHN A. PORTER, of New Haven, Conn.

#### PREPARING BEEF FOR DRYING.

Will you inform me the "modus operandi" of preparing beef, for drying.

*Jonesville, Mich.* YOUNG HOUSEKEEPER.

We are not aware that there is any specific mode for accomplishing the object concerning which "Young Housekeeper" desires information, as each individual usually consults his or her own taste in the premises. We have had dried beef, which was pronounced excellent, prepared as follows:—Dissolve sufficient salt in water to barely float a potato or egg, heat to boiling point, and skim off all the scum which comes to the surface, add two ounces of saltpetre and two quarts of sugar-house syrup, then set away to cool. When cold, pour over the beef (see that you have plenty of brine to cover,) and let it remain until thoroughly cured,—two to three weeks (according to the size of the pieces,) will be necessary. Take out the meat, let it drain, then hang up in any dry place. If a smoky flavor is desired, smoke in same manner as you would hams or shoulders. The quantities given above are calculated for 100 pounds of beef.

In addition to the foregoing we give the following extracts from previous volumes of the *Rural* and from other sources:

In the *Rural* of Dec. 19th, 1857, "N." gives the following method of curing beef, hams and venison, and says, that after an experience of years, in which he has cured many tons, he knows of nothing better. To every 20 pounds of hams or beef, take 2 ounces of saltpetre,  $\frac{1}{2}$  pint molasses, and  $\frac{1}{2}$  pint salt. Dissolve and thoroughly mix the ingredients with a quantity of water only sufficient to cover the hams when packed rather loosely. After making the brine, let it stand a little time to settle; pour it on the hams, but keep them from floating in the brine. About once a week take out the hams and re-pack, that every point of the hams may come in contact with brine. In about four weeks they will be cured for smoking, and may be smoked at pleasure. No fear need be entertained that they will become too salt. After smoking they may be replaced in the brine and kept any desired time without injury. If saltpetre is objectionable to any one, leave it out and add more salt and molasses. Beef and venison may be cured in the same way.

R. G. B., in the *Rural* for Dec. 11th, 1858, says: "To corn beef, my method is to cut it up, and pack it in the barrel, and make a brine out of good rock salt, strong enough to bear up an egg, and pour on scalding hot."

The *Ohio Farmer* says:—"To eight gallons of water add two pounds of brown sugar, one quart of molasses, four ounces of saltpetre, and fine salt until it will float an egg."—*Rural New-Yorker*.

GARDENER'S MONTHLY.—We thank you, Mr. "Gardener" for your good opinion of us. But why do you not receive the "*Farmer*," which is regularly mailed to you? These thievings must be checked. It is a small sin to "rob the Exchequer," compared to stealing our children from the mails. We hailed your advent with pleasure, so stated to the world, and have often regaled ourselves upon your savory dishes since.

*For the New England Farmer.*

### WINTERING BEES.

MESSRS. EDITORS:—Having made some observations on the habits of bees, and tried various hives, experiments, &c., I propose to give some of my experience. I notice that after a steady, extreme cold winter, people complain that their "bees froze to death, had honey enough, don't understand it." I wish to draw attention to the cause. I wish those who have bees out doors to examine the hives where they are not well ventilated at, or near the top, and see if there is not vapor in them; if there is glass, you will detect it on that. Long, continued cold, congeals this vapor, first on the walls of the hive, next on the outside comb, gradually working towards the bees, as the cold continues, till the bees are surrounded with ice, so that their honey is inaccessible, and the bees starve, unless a thaw relieves them; and then a sudden freeze is still more disastrous, the bees being wet from the water running down on them, and are frozen together in masses.

The picture I have drawn only occurs after long continued cold spells, which occur sometimes in three, five or eight years. The remedy I have found for this, is, sufficient upward ventilation, to let off the vapor, but close the bottom so as not to have a strong current of cold air through the hive. This is laid down by Mr. Quinby, in his "Mysteries of Bee Keeping," and also by L. L. Langstroth on the "Honey Bee," works to which I am much indebted, and probably the two best works in the country on bees.

Bees have usually been wintered out doors with little or no protection, but Quinby and Langstroth both think they can be wintered on much less honey, kept in a dark, dry place, a little below the freezing point. They state that they have wintered swarms on four, five and six pounds of honey. From my experience, I am satisfied it can as well be done as to have them eat from 20 to 30 pounds. Quinby winters in a house built for the purpose, the studding, floor, joists and rafters being boarded on both sides, and filled with tan bark, charcoal dust, or sawdust, and the hives turned bottom-up, with the bottom board raised up, or removed, to give ample ventilation. Langstroth has tried covering with earth on top of the ground with success. I have succeeded well by placing the hives in a dark, dry cellar, bottom up, board off. The bees did not endure the cold after being put out in the spring, as well, I thought, as those that had stood out. There is but little danger of smothering, when there is good upward ventilation; but look well to those that have not, and see that they do not get stopped at the entrance by lice, or dead bees. I found a valuable swarm of an acquaintance nearly gone, from the bees falling against the entrance inside, so as to stop it entirely. Save your bees from "snow blind" on pleasant days, by spreading saw dust, hay, chaff or something, about on the snow where they fly. Where top boxes are used, take them off to keep from mould. C.

*New Britain, Ct., 1860.*

RED HOT GUNS.—There is no doubt whatever that cast iron long submerged in the sea, will on being exposed to atmospheric air, become hot even

unto redness, and sometimes fall to pieces. Such was the case with some iron guns which formed part of the armament of one of the vessels of the Armada, sunk off the Island of Mull, and the cast iron balls with which some of the guns of the "Mary Rose," sunk off Spithead temp. Henry VIII., were loaded. Mr. Wilkinson, in his "Engines of War," remarks, page 242: "It is also an extremely curious fact, that the cast iron gratings which have been long immersed in the porter backs or vats of large London breweries, possess the same property of becoming hot on exposure to the atmosphere when the porter is drawn off for the purpose of cleaning them."—*Scientific American.*

*For the New England Farmer.*

### DEFINITION OF WORDS AND TERMS.

MR. EDITOR:—It seems to me that half of our controversies would be ended, and much misunderstanding be prevented, if we should first clearly define the words and technical terms which we use in our papers and periodicals. Half of the prejudice against book-farming, as it is called, is owing to the fact, that the common class of farmers do not fully understand what they read, and have no patience to look out the meaning of the words in a dictionary.

It should be borne in mind, that the great majority of farmers have enjoyed but slender means of education, and some have had little, or none at all, except what they have picked up for themselves, "here a little and there a little." When, therefore, in reading an article on the different kinds of soil, written perhaps by one of our best writers, they happen to meet with such words as *argillaceous, calcareous, silicious, &c.*, without one word of explanation, they are puzzled, embarrassed and vexed. So, too, in reading a description of the different kinds of plants, when they meet with an article unnecessarily encumbered with botanical terms and foreign idioms; or, in reading an article on any other subject, abounding in words and phrases derived from other languages, they are greatly offended and disgusted.

The object of agricultural books and papers is, in a plain way, and in the simplest language possible, to lay before practical farmers practical results, to inform them of what has been done by others. It is to describe the methods of cultivation which have been successfully practiced by others, and to encourage improvements in all. It is to make all farmers understand their business thoroughly, and to lead them to cultivate the earth more successfully and profitably.

But when books and periodicals, intended to convey instruction to the common class of readers, abound in obscure words, technical terms and foreign idioms, they not only defeat the object for which they were written, but they create a strong and inveterate prejudice against all book knowledge. "Why," say they, "does not a man write, as he talks, in plain common sense language, so that we can understand his meaning, and not make such a fool of himself? If he has any thing to say, why does he not say it, and have done with it, and not attempt to show off his learning with such a rigmarole of words? If he knows more than we do, or if he thinks he does; if he has had better advantages and more experience

than we; if he feels himself able to enlighten and instruct us, he must come down to us, and adapt his remarks to our capacities, so that we can understand him."

I hope I have not been misunderstood in the foregoing remarks. They are not intended to be hypercritical or censorious; nor are they aimed at any particular writer in your interesting and useful paper; but they are intended to convey a gentle hint to all the writers in the *New England Farmer*, not only to aim at simplicity and perspicuity in the use of language, but to avoid, as much as possible, the use of technical terms and foreign idioms, since the words in our own language are so simple, so significant, and so expressive. If any writer is compelled to use technical terms and foreign idioms, let him define them as he proceeds, because it is very inconvenient to hold a newspaper in one hand, and a dictionary in the other.

JOHN GOLDSBURY.

Warwick, December, 1860.

*For the New England Farmer.*

#### THE DELAWARE GRAPE.

MR. EDITOR:—A week or two since I sat down to my writing-table, to give you, as is usual with me at this time of the year, a little sketch of our agricultural products in this county. But on second thought I resolved to defer my communication until I should arrive in Ohio, and I am very glad now that I did so, as I find myself most favorably situated to gain some facts on a topic which has interested your readers in New England. You will perceive by the postmark, that I am in the place where the Delaware grape originated, and as many of my neighbors at home are procuring the grape, and others doubtful whether to do so or not, waiting till it shall have been more fully tested, I take great pleasure in imparting all the facts which I can glean upon the subject.

Mr. G. W. CAMPBELL and Mr. THOMPSON, of this place, have been among the most active in circulating and growing this grape. I have been spending a few days in the family of the former, and he has, with great patience and kindness, answered all the numerous questions which an inquisitive Yankee, who does not like humbugging, might wish to make.

Mr. C. obtained his grapes from the original vines, which are still growing about three miles from this place, on the Sciota river, where they were first planted when brought from New Jersey, about twenty years ago. The vines were brought by a Mr. Harford, not a German, and one vine planted in his garden, and another in that of his neighbor, Mr. Heath. There they may still be seen.

These parties believed the Delaware to be of foreign origin, but they knew nothing certainly of the matter.

Mr. Campbell says: "I have investigated the matter carefully, and believe it to be either an accidental seedling from a native American grape, or a hybrid from an American crossed by a foreign variety. The latter supposition seems to me most probable, and I have been for some years engaged in a carefully conducted series of hybridizing experiments, with a view to test its agency in pro-

ducing new varieties, and in ameliorating the quality of older ones." A very strong argument in favor of its native origin is the fact that seedlings from it have borne fruit with a hard pulp and a decidedly *foxy* aroma and odor.

When Mr. Longworth first received this vine, he thought it was the *Red Trainier* a foreign grape, and many orders for "Delaware," in various parts of the country, were filled, and honestly so no doubt, by nurserymen with vines of the *Trainier*.

This has, no doubt, caused much of the confusion and deception (so called) with this grape. Mr. Longworth altered his mind after further investigation. And now, Mr. Editor, I know what some hundreds of your readers in Vermont are asking, about this grape. "Is it a good table grape?" and next, "Is it hardy, and suited to our climate?"

What we wish is a grape that we will not be under the necessity of protecting.

As to the eatable qualities of the Delaware, I believe there is not a dissenting voice among those who have fruited the genuine vine. It is pronounced superior even to our foreign grapes in richness of flavor, and as a table grape is far ahead of any American variety.

As to its hardiness, there is now near the window where I write, a vine, now seven years old, that withstood the winter of 1855-6, without protection, when the thermometer went 28° below zero, coming out fresh and bright in the spring. This and the Logan were the only vines among a great variety in the same garden that were not injured by that severe winter.

As near as I can ascertain, there is no grape so well adapted to New England and so worthy of universal cultivation. It has one other recommendation, that of being a very superior wine grape. On this subject I may not personally be a competent judge, but I cannot be mistaken as to its "bouquet," which is most exquisite, and far surpassing all our ordinary wines. That which I drank was the pure juice of the grape, without the addition of any sugar, and was much superior to any of the other native wines, a number of which were tested at the same time.

Since I commenced this article, I find that this grape has received the commendation of the Cincinnati Committee on Grapes. They say "it ripens three weeks earlier than the Catawba, stands spring frosts better, the grapes never rot, and it is healthier and hardier."

Now, Mr. Editor, I have no Delaware grapes to sell, (I wish I had.) My one vine, originally from this place, stood last winter well, and made a good growth last summer. Since coming here and seeing for myself the good qualities of the grape, I would not part with it for five times its marketable value, and I wish it could be universally cultivated in New England; but I would advise those who wish to procure one, to be careful to obtain the genuine, as there have been spurious vines sold under that name.

The "Logan," to which I have referred as being very hardy, is another, attracting some attention. I have obtained the following facts which may be of use. The fruit of the Logan was first exhibited before the Mass. Horticultural Society by Mr. Campbell, of Delaware, O., in the fall of 1837, when it received favorable notice. The following

year it was placed on the list of "promising well," by the American Pomological Society, at New York city. It is a purple or black grape, not unlike the Isabella in appearance, but quite distinct from that variety in foliage and the quality of its fruit. It is more sprightly and vinous than the Isabella, and, having a rich, dark colored juice, would probably make good red wine. It is vigorous and hardy, requiring no protection, during the severest winters. It ripens three weeks earlier than the Isabella, and on this account would be valuable for the northern section of New England, where the Isabella will not ripen.

I could write you much more upon the grape culture, and of some interesting experiments in hybridizing, but my article is already long enough.

I have something, too, to say to the "Farmer's Daughter," who has propounded me two questions. I mean to answer them, hoping in the meanwhile she will have a little patience with me.

*Delaware, Ohio, Jan., 1861.* A. E. PORTER.

*For the New England Farmer.*

#### DESIGNS FOR BUILDINGS.

MR. EDITOR:—I am not an architect myself, neither do I wish to be a critic, but when I see the plan of a building laid down, I always like to follow it out in my mind, to see how it would look when finished. In the plan before me, given in the *N. E. Farmer*, 22d inst., I find a difficulty in reconciling "its whole with all its parts." Perhaps a little explanation would set me all right. Now the parlor, No. 3, 14 feet, the vestibule, No. 2, 6 feet, and the dining-room, No. 5, 14 feet, constituting the front part of the house, would be 34 feet. If this is to be the length of the house, and let the width go back so as to cover No. 4, and part of No. 6, leaving the balance, together with the piazza, No. 8, as outside attachments, then we have it 30 by 34, instead of 30 by 36 feet, as first proposed. But if the rooms are intended to be so many feet in the clear, then the thickness of the four walls might make up the other two feet in the length; but on that supposition, the width having three walls, would require to be 31½ feet. Then if the length is reckoned the other way, including No. 8, and the whole of No. 6, and allowing 4 feet for the length of the passage between No. 6 and No. 5, we have 34 by 36. It seems to me there must be an inconsistency in it somewhere; that a man undertaking to build after this pattern, would find himself involved in difficulty.

It is not so important that the drawing be perfect, though in any diagram it is pleasing to see each part represented in its true proportion; but it is particularly desirable that the calculation be scrupulously correct. H.

*Fairhaven, Vt., Dec. 29, 1860.*

REMARKS.—If the designs we give cannot be carried out into actual dwellings for us to live in, they are but meretricious ornaments, scarcely paying for the room they occupy. We have no doubt but Mr. HARNEY, the designer, can give working plans of his designs that will prove to be correct to the "ninth part of a hair." But he is

not immaculate—may have made a mistake, and will be glad to show "H.," just where it is. "H." will please accept our thanks for his kind criticism.

#### TELLING THE BEES.\*

BY J. G. WHITTIER.

Here is the place; right over the hill  
Runs the path I took;  
You can see the gap in the old wall still,  
And the stepping-stones in the shallow brook.

There is the house, with the gate red-barred,  
And the poplars tall;  
And the barn's brown length, and the cattle-yard,  
And the white horns tossing above the wall

There are the bee-hives ranged in the sun;  
And down by the brink  
Of the brook are her poor flowers, weed o'errun,  
Pansy and daffodil, rose and pink.

A year has gone, as the tortoise goes,  
Heavy and slow;  
And the same rose blows, and the same sun glows,  
And the same brook sings of a year ago.

There's the same sweet clover-smell in the breeze;  
And the June sun warm  
Tangles his wings of fire in the trees,  
Setting, as then, over Fernside farm.

I mind me how with a lover's care  
From my Sunday coat  
I brushed off the burs, and smoothed my hair,  
And cooled at the brook-side my brow and throat.

Since we parted, a month had passed—  
To love, a year;  
Down through the beeches I looked at last  
On the little red gate and the well-sweep near.

I can see it all now—the slantwise rain  
Of light through the leaves,  
The sundown's blaze on her window-pane;  
The bloom of her roses under the eaves.

Just the same a month before—  
The house and the trees,  
The barn's brown gable, the vine by the door—  
Nothing changed but the hives of bees.

Before them, under the garden wall,  
Forward and back,  
Went drearly singing the chore-girl small,  
Draping each hive with a shred of black.

Trembling, I listened: the summer sun  
Had the chill of snow;  
For I knew she was telling the bees of one  
Gone on the journey we all must go!

Then I said, "My Mary weeps  
For the dead to-day:  
Haply her blind old grandsire sleeps  
The fret and the pain of his age away."

But her dog whined low; on the doorway sill,  
With his cane to his chin,  
The old man sat; and the chore-girl still  
Sung to the bees stealing out and in.

And the song she was singing ever since  
In my ear sounds on:  
"Stay at home, pretty bees, fly not hence!  
Mistress Mary is dead and gone!"

\* A remarkable custom, brought from the old century, formerly prevailed in the rural districts of New England. On the death of a member of the family, the bees were at once informed of the event, and their hives dressed in mourning. The ceremonial was supposed to be necessary to prevent the swarms from leaving their hives and seeking a new home.

## EXTRACTS AND REPLIES.

## DO FROGS EAT BEES?

In the hot weather, last summer, I raised a hive containing bees about three-fourths of an inch from the bottom board, so as to give them more air. One evening early in autumn, when passing the hive, I accidentally espied a common green frog on the board near the hive. The query arose at once, can he be after bees? Upon looking around I found several others near; and here I will say I do not recollect ever to have seen the frogs so plenty at a distance from the water, as they were in this vicinity last summer, owing, probably, to the wet season.

But to my story. The next evening I went to the hive after dark, and found the frogs there again. One was close to the edge of the hive, and when a bee which acted as sentinel came near, the frog made a slight stretching motion, and then remained quiet until another came along, when the motion was repeated. I then drove the reptile away, and lowered the hive to the bottom board. In a few minutes I saw two frogs creeping towards the hive in a very cautious manner, but as the bees were secure, I left them.

The following evening the frog placed himself at the entrance of the hive, as if determined to devour every unlucky worker that was out in the twilight.

I have never been in the habit of destroying the life of beast, bird or reptile, without being well satisfied that the injury done was in excess of the benefits bestowed. I am fully convinced that toads are very beneficial in a garden, and I have always considered frogs entirely harmless, therefore I never killed one intentionally. But my faith in their innocence is somewhat shaken. It may be that those frogs were in search of moths and other insects instead of bees. I think, however, if the operation is repeated next summer, I shall make a *post mortem* examination of at least one frog's carcass.

In the meantime, I hope others will give their opinions, founded upon facts. If frogs are really guilty, let them be condemned; if not, let their innocence be proclaimed. L. VARNEY.

*Bloomfield, C. W., 1860.*

## FENCE POSTS IN HEAVING SOILS.

In the monthly *Farmer* for December I noticed several articles from correspondents about setting fence posts in heaving soils; one of which recommended having them sufficiently long to reach below the frost; another recommended filling a considerable space around them with small stones, and a third to fill around them with gravel. These clayey soils in which it is found so difficult to make fence posts stand are among the very best in the country; and the difficulty of making any fences but the zig-zag stand upon them is one of the greatest drawbacks to their cultivation.

One of the best farms in my own county has a large extent of this kind of land, and a few years since the owner getting tired of "wavy lines" for fences determined to try straight ones; and to prevent the posts from rising, set them full four feet in the ground. In about two years his fence was high enough to admit his calves to pass under it, about the third year his yearlings, and at

the present time I am informed his cows can do the same with little inconvenience.

In my own opinion the whole system of setting posts in the ground is generally a bad one. Fences can be built without the zigzag, so that the posts will not only remain where they are put, but will outlast the board.

What would be thought of the farmer who should set the post of his house or his barn in the sand or in the mud, or in clay, even if he filled around them small stones or gravel?

The durability of our fences is certainly not of less importance than of our barns and houses. And no farmer should be satisfied with a post and board fence that will not keep its position on the worst heaving soil, and last at least thirty years.

CHARLES R. SMITH.

*East Haverhill, N. H., 1860.*

## RECLAIMING GRASS LANDS.

"A Subscriber" wishes to know how meadow land may be reclaimed? And you, Mr. Editor, have truly answered, that the ditch, plow and manure will reclaim it. But what if the manure is not to be had? My experience is to go ahead without the manure, and is justified by an experiment on a piece of wet meadow, the muck being from two to five inches deep, with a stiff clay subsoil. This piece was plowed in August, 1859, and made as smooth as the plow and hoe would make it. Next a light harrow was used until the soil was well pulverized. I then sowed on herdsgrass seed at the rate of three pecks per acre. The land was then harrowed, the sods turned down, and roller passed over it, making it quite smooth. The result was a heavy crop of grass, certainly at the rate of two tons per acre. I think that fowlmeadow or some other meadow grasses might be more profitable, in the end. The experiment has led me to plow several acres more of land in the same condition, and I hope with like results. SOLON R. BERRY.

*Thetford, Vt., Dec., 1860.*

REMARKS.—This is certainly encouraging. There are many instances where it is advisable to plow seed without manuring. Some grass lands are not poor, but, for some cause are "bound out," the grasses have lost their roots. Upon plowing and reseeded such lands, fine crops are sometimes realized at once.

## TIME FOR CUTTING TIMBER.

I noticed in your paper of last week quite a long article on the subject of cutting timber, the best time to do it, &c. I have had more or less experience for many years in cutting wood and timber, and making fence, so that what I have to say on the subject will spring from experience.

About twenty-five years ago, I set a man to chopping wood some time in the month of June, and it so happened that he only cut one tree, a chestnut, about a foot in diameter, and split and piled the same. I drew it in the winter after, and it dried the best and brightest of any wood I ever cut. I have cut some thousands of cords since. There is one objection to cutting wood between the time of the sap having passed up into the branches and back again into the roots. One year

I cut several cords early in September, which has not sprouted until this day, while wood cut on the same slope in winter sent up sprouts five and six feet the first year after being cut. My method of managing woodland is to thin out all the small trees after they get to be of considerable size, [What size is considerable? What diameter? Ed.?] and leave the main ones to grow; by this process I find the timber makes very fast, and when I cut clean, if there are any thrifty trees I leave them until the wood is ready to cut again. By this mode of procedure I get large and tall timber. For instance, twenty or twenty-five years ago, I left on an acre thirty or forty chestnut trees from six to eight inches through; and they are now from fifty to seventy feet high, and from twenty to thirty inches in diameter. Twenty-one years ago I set about twenty-five rods of board and post fence. I cut the posts and peeled them the year before. I set the fence as soon as they were perfectly dry, the butt ends all in the ground. The posts were from six to eight inches in diameter and are nearly all standing now. The soil where the fence was built is gravel.

SPENCER BYINGTON.

*Stockbridge, Jan., 1861.*

#### HOW TO KILL VERMIN ON CATTLE.

Having noticed articles in the leading agricultural journals in relation to killing lice on cattle, many of which I have tried with little effect, I propose to add another to the list for the benefit of those not already acquainted with it, and which I have tried with entire satisfactory results, in every instance where I have used it. Take poke root, sometimes called *blue dragon* or *hellebore*, and boil enough to get a very strong tea or wash, and apply it as a wash thoroughly, and it will surely kill every one of the vermin, and without the least detriment to cattle. One good application is sufficient.

SILAS MASON.

*Hartwellville, Vt.*

#### THE CONCORD GRAPE.

Can the Concord grape be relied upon in this latitude ( $44\frac{3}{4}^{\circ}$ ) without winter protection? I am anxious to raise grapes, and I want the best, if I can find them?

L. VARNEY.

*Bloomfield, C. W., 12th Mo., 6th, 1860.*

REMARKS.—We do not think you would be able to cultivate the Concord grape vine in your locality without winter protection, and unless vegetation is very rapid during the summer months, the fruit would not ripen even if the vines came through the winter in perfection. Still, if you raise Indian corn in your climate, you may get the Concord grape.

#### KING PHILIP CORN.

Have you the King Philip corn, and the improved King Philip corn? What is the price of each, per bushel, and for smaller quantities? What is the difference in the time of ripening, and in the yield?

BENJAMIN DOE.

*New Market, N. H., Dec., 1860.*

REMARKS.—The corn inquired for is usually for sale at the seed stores for about \$2 per bushel

—perhaps at the rate of \$2.50 or \$3 in small quantities. We cannot answer the second question.

#### CATTLE DISEASE.

How is the cattle disease? I have been led to believe that you have not had any fresh cases since July last, as you are silent on the subject in your monthly. But other indications induce me to suppose that new cases occurred last fall and this winter. Please give us the facts as you know them.

T. H. COLLINS.

*Locust Lawn, New Albany, Ind., Jan., 1860.*

REMARKS.—There were several new cases of the "cattle disease," last fall, and as soon as they were discovered the sick animals were either isolated or immediately killed. The decided action of the Commissioners undoubtedly checked the disease and prevented its spreading over the country. There are now, happily, no recent cases of the disease in our knowledge.

#### PLANTING POTATOES IN THE FALL.

I would inquire through the *Farmer* if any one has planted potatoes in the fall, and covered them with straw or sea drift, with success? I think I saw something to that effect in some paper.

N. Y. HALL.

*Deering, N. H., Dec., 1860.*

#### HORSE CART.

Can you give a good drawing or description for a horse cart?

CHESTER BAKER.

*Amherst, Mass., 1860.*

REMARKS.—When we can obtain a good illustration of a good horse cart, we will give it in the *Farmer*.

#### A FINE CROP OF OATS AND WHEAT.

Mr. WILLIAM HANSON, of Barre, Vt., raised the past season, 1450 bushels of oats on 23 acres, twenty acres of which was green sward. He also raised 60 bushels of wheat on  $1\frac{1}{2}$  acres.

*Barre, Vt., Dec., 1860.*

*For the New England Farmer.*

#### A PROLIFIC BORER.

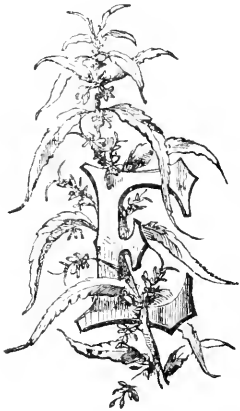
The 18th of the 6th month, while walking near an elder-bush in one corner of my garden, I discovered signs of a borer near a thrifty sprout of this year's growth. On examination, I found one had entered about fifteen inches from the ground, and had devoured the pith upwards about thirteen inches, where I found him. The insect was an inch and a quarter long, of a greenish color, spotted with black. It had 16 legs—6 black, pointed ones near the head, and 10 posterior ones of the color of the body, which appeared to be concave on the under side. It could crawl backwards or forwards equally well. I placed a piece of the bush with the worm in it, under a glass, and in about two weeks found it dead, but it had left in the piece of wood thirty-six eggs.

Was this the apple tree borer?

*Bloomfield, C. W., 1860.*

L. VARNEY.

## HORSES, AND THEIR DISEASES.



Crib Biting—Farcy—Hide Bound—Roaring—Ring Bone.

VERY farmer is interested in the horse,—and not only himself, for when a good, faithful horse has long been upon the farm, he comes to be regarded almost as one of the family, at least, as indispensable to its comfort in many ways. When attacked by disease, and the poor animal is suffering, the sympathy of the whole household is excited, and all are anxious to do something to alleviate his pain as well as to restore him to service. We propose, therefore, in the course of this year to mention some of the diseases to which the horse is liable, and some rational remedies for them. It will not be in our power to say that all the diseases will be accurately described, or that the remedies are the best that may be prescribed,—but we shall select from the best sources, and would invite those familiar with the diseases which so often disable the noble animal, to aid us in the effort to throw light upon the subject.

We introduce below, a brief description of several diseases, with the treatment for each, all in plain, common sense English, from a new work by EDWARD MAYHEW, called "*The Illustrated Horse Doctor*," and recently published in London. The reader will see in these extracts how briefly and intelligibly he presents the symptoms and treatment of some of the diseases which destroy the usefulness of the horse.

## CRIB BITING.

*Cause.*—Sameness of food, and unhealthy stables or indigestion.

*Symptoms.*—Placing their upper incisors against some support, and, with some effort, emitting a small portion of gas.

*Treatment.*—Place a lump of rock-salt in the manger; if that is not successful, add a lump of chalk. Then damp the food and sprinkle magnesia upon it; and mingle a handful of ground oak bark, with each feed of corn. Purify the ventilation of the stables before these remedies are applied.

## FARCY.

*Cause.*—Excessive labor, poor food and bad lodging, operating upon old age.

*Symptoms.*—It is, at first, inflammation of the superficial absorbents. Lumps appear on various parts. If these lumps are opened, healthy matter is released; but the place soon becomes a foul ulcer, from which bunches of fungoid granulations sprout. From the lumps may be traced little cords leading to other swellings. The appetite

fails; or else it is voracious. Matter may be squeezed through the skin. Thirst is torturing. At length glanders break forth and the animal dies. There is a smaller kind of farcy, called button farcy—the smaller sort is the more virulent of the two.

*Cure.*—There is no known cure for the disease.

## HIDE BOUND.

*Cause.*—Neglect, or turning into a straw or stable yard for the winter.

*Treatment.*—Liberal food, clean lodgings, soft bed, healthy exercise and good grooming. Administer, daily, two drinks, composed of—liquor arsenicalis, half an ounce; tincture of muriate of iron, one ounce; water one pint. Mix, and give as one dose.

## ROARING.

*Cause.*—The bearing rein; the folly of fashion.

*Symptoms.*—A noise made at each inspiration.

*Treatment.*—No remedy. The cabman's pad is the only alleviation; that conceals and does not cure the disease.

## RING BONE.

*Cause.*—Dragging heavy loads up steep hills.

*Symptoms.*—A roughness of hair on the pastern, and a bulging forth of the hoof. A want of power to flex the pastern. An inability to bring the sole to the ground, only upon an even surface. Loss of power and injury to utility.

*Treatment.*—In the first stages apply poultices, with one drachm of camphor and of opium. Afterwards rub with iodide of lead, one ounce, simple ointment, eight ounces. Continue treatment for a fortnight, and after all active symptoms have subsided, allow liberal food and rest; work gently when labor is resumed.

For the New England Farmer.

## SOCIETY REPORTS--SUCCESSION OF FOREST TREES.

The Transactions of the Middlesex Agricultural Society for the year 1860 is a well prepared document, and contains valuable information to the farmer. I notice, however, one important omission, which, in common with many of the reports of county societies, detracts much from its interest and value. It is shortly this: In not giving full statements with regard to crops entered for premiums. What we want to know is, the most successful methods of culture, with the cost attending it, the nature of the soil, its previous use, the kind of seed, the amount sowed, and the manure applied. Without such statement, the reader only knows that A. B. raised twenty-five bushels of wheat to the acre, and nothing more.

The address of Mr. Thoreau is a very interesting one, particularly that portion which explains the process of nature, by which when a decayed pine wood is cut down, oaks and other hard woods may at once take its place. In other words, how it is that, without the aid of man, a rotation of crops in the shape of trees takes place. This is done, as he truly says, by the winds, in some cases, by the birds and by animals in others. The squirrel is a great tree-planter, the oak, the walnut and the beech are mostly planted by him. They are brought from long distances and are

buried in the ground for winter use; some are forgotten or are not wanted and they vegetate the following spring. He is, however, mistaken in supposing the planting to be carried on annually of necessity, or that "the oldest seedlings annually die." The plants come up and throw out from two to six leaves, and continue to do so from year to year, until the pines decay or are removed, and the light and air come to them, when they at once commence a vigorous growth. I have marked within fifteen years, hundreds of oaks in their dormant state, and have never lost sight of them. There they are, just as when I first discovered them. Others I have opened to the light and air, by clearing away the pines which shadowed them, and they are vigorously taking their places. Providence has wisely made this provision for the future. These plantations are existing all around us, with no oaks within a large circuit—they have been all sacrificed years ago, yet the clearing up of a pine grove will reveal the careful providence of nature. If no oak has *ever* grown in a district, none will grow, for want of seed, but once planted and germinated, it is never lost.

The squirrel is equally efficient in planting the pine seed as the acorn. The cone of a pine contains from thirty to sixty sound germinating seed. The squirrel, with his sharp teeth, cuts off the little flaps which hold them and pouches them, carrying them to his retreat, where they are lightly buried. A common chipmunk will take in his pouches or cheeks more than a hundred seeds at a time.

It is not only the pine that acts as a sentry over the oak, preparing for its future growth by the annual decay of its spikelets. The birch, to some extent, performs the same office. If you carefully look through what appears to be an entire birch cover, you will frequently find the young oaks beneath abiding the period of its more rapid decay.

R. J. F.

#### BUCKWHEAT.

This grain, which possesses a high value for a variety of purposes, should be sown between the fifteenth of June and the first of July. The soils best adapted to buckwheat, are those of a silicious or sandy texture. The frequent failures which have attended the cultivation of this grain, are attributable, in a majority of cases, to lack of attention in managing it. The soil should not only be rich in soluble extractive matters capable of yielding aliment to the plants, but of such a texture as to admit of its being reclaimed by the action of the harrow and the plow to a very fine tilth. Purity of seed, also, is another important consideration. It should be of good quality as to fullness and roundness, and not above three pecks allowed to the acre. The application of the roller to the surface after sowing the seed, will be beneficial, as it tends not only to compress the soil around the seeds, but to facilitate the labor of harvesting by producing a level surface. This is important, as it enables the mower to carry his scythe near the roots of the stalks, and to obviate the loss of seed which a more elevated

stroke would shatter out. Clayey soils, unless thoroughly drained and pulverized, are unsuited to this crop. The soil congenial to this crop is upland green sward, inclining to sand, plowed in June.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

The first meeting of the Legislative Agricultural Society was held in the Representatives' Hall at the State House, on Monday evening, Jan. 7, which was well attended.

The assemblage was called to order by Col. STONE, of Dedham, and SIMON BROWN, editor of the *New England Farmer*, was unanimously elected President of the evening.

On taking the chair, Mr. Brown spoke briefly of the importance of these meetings, and of the desire of the people of the Commonwealth to learn, through the papers, what is said at them. He spoke, also, of the necessity that every farmer should avail himself of the real improvements in agricultural implements and machinery, so that he may keep progress with other industrial pursuits in obtaining his products cheaply. He said that he believed farming to be the most profitable pursuit ever engaged in by man, when the true meaning of the word *profitable* is considered, and that it is as honorable as any other. He made several interesting illustrations, and closed by appealing to the members of the Legislature to sustain these meetings by their presence and teachings.

On motion of Col. STONE, Mr. MASON, of Dartmouth, was chosen Secretary.

A committee of seven, consisting of Messrs. FREEMAN WALKER, of North Brookfield, LANSING J. COLE, of Cheshire, ELIPHIALET STONE, of Dedham, JOSIAH WHITE, of Petersham, D. ORLANDO FISKE, of Shelburne, DAVID H. MERRIAM, of Fitchburg, and SILAS T. SOULE, of Wareham, were appointed to furnish subjects for discussion for future meetings.

Mr. WHITE, of Petersham, being called on, said, that of the utility and importance of these meetings there could be no doubt, and he trusted this was the first of a series to be held by the Legislature that would benefit every one who attended them. He always felt bound to give all the aid he could to advance the interests of the agriculturist, and he thought in the short time left, the time would be well devoted to the subject of *Improvements in Agricultural Implements*, expressing the opinion that these had been brought about by the farmer's success.

Col. STONE complimented the previous speaker, and said that in his opinion these meetings were better conducted without restraint, and he hoped to hear all take part in the discussions.



Mr. MERRIAM, of Fitchburg, said that a year ago last summer he raised an excellent crop of corn from the virgin soil, and this was by work alone. He plowed the land four feet deep, using a Michigan plow, and drained it, putting on guano, partly in the hill and the other part sowed in. He spoke in high terms of praise of Bates' machine to pull out stones, that he had used, and said he was desirous of seeing it come into more general use.

Mr. FISKE, of Shelburne, said he thought the whole community should be interested in the subject of agriculture, and he hoped these meetings would have a good influence on the sons and daughters of Massachusetts. The idea prevailed that farming did not pay, but it was high time this fallacy was exposed, as every man who has devoted his attention to farming could testify that no pursuit was more likely to pay well for the time and labor bestowed upon it. He also spoke of the rock-lifting machines, and was desirous that they should prepare the land for mowing machines, and he hoped neighbors would club together, so as to bring them within the reach of all.

Mr. WARD, of Fairhaven, said he had not done anything in farming for a number of years, but his mind had nevertheless been drawn to the subject of agriculture. He thought every State should be circumscribed in its products. England, said he, is a manufacturing country, and in this line were their own producers; we ought to be an agricultural country, and to be so the greatest encouragement should be given to the farmer. He spoke of his mode of raising onions, saying that he hoed seven times, taking every other row, and hoeing nearly up to the adjoining row, thus giving the ground nearly as good as fourteen hoeings.

Mr. SEARS, of Yarmouth, said he did not belong to an agricultural district, but he detested the idea of young men and women going away from the farm on the ground that it was not genteel. He considered the idea of "skinning" the soil false, and hoped to see the process stopped.

Mr. BENNETT, of Hubbardston, said he was not engaged in farming, but he had taken interest in the statistics of the State in relation to it. From these he quoted at some length, showing that the returns from Worcester county showed a larger percentage than any other county in the Commonwealth. From close observation he had come to the conclusion that the larger amount of cultivation should be devoted to the best soil. He also said longevity was largely in favor of farmers.

On motion of Col. WHITE, the subject for discussion at the next meeting was decided to be, "*The winter management of farm stock.*" Governor ANDREW is expected to preside.

#### FACTS ABOUT CHINA.

The Emperor of China, Hienfung, is the seventh of the reigning dynasty of the Tsings, which succeeded in 1644 to that of the Mings. The present Emperor is the 24th, dating back 4702 years. His reign commenced on the 26th February, 1850. Hienfung is not his actual name, but a sort of official name adopted by him as reigning sovereign, and signifies Perfect Felicity. The name of his father, Tankwang, signified Splendor of Reason. The population of China was estimated in 1849 at about 415 millions of souls. The public functionaries (Mandarins) are divided into nine classes, of which each is again subdivided into two, and the civil authorities take precedence of the military. Authentic information respecting the finances and the army is wanting. The military organization differs essentially from that of European nations. Each governor of provinces has his own regiment of Chinese, but they rarely engage in action. There are Manchoux who serve only as garrison troops. In case of war, a militia force is raised, composed principally of volunteers, who hope to derive certain advantages, or obtain the rank of Mandarin. There is a war department, but no officers that are superior to the governors of provinces. When there is question of war, as of late to combat the rebels at Nanking, the Minister of War names a commander-in-chief, to whom all the troops are subject. There is no imperial navy; the admirals are functionaries of the provinces. The Chinese army, including the reserve, may be estimated at 1,500,000 men, of whom 700,000 are Chinese, 300,000 Mongols, and 500,000 Manchoux. The fleet consists of 826 vessels and 58,637 men, commanded by two admirals.

MIDDLESEX AGRICULTURAL SOCIETY. — We have before us the report of the last year's doings of the Society. The Address of Mr. THOREAU, "*On the Succession of Forest Trees,*" is given in full. We have spoken of this before, and given extracts from it. It contains, also, reports on *Sheep, Poultry, Grapes, Vegetables, Bread,* and *Plowing with Single Teams*, extracts from which we hope to find room for hereafter. There are several other short reports of no general interest. The officers of the Society for the ensuing year are,—

GEORGE O. BRASTOW, *President.*  
 ANDREW WELLINGTON, } *Vice Presidents.*  
 E. W. BULL, }  
 JOHN B. MOORE, *Secretary.*  
 RICHARD BARRETT, *Treasurer.*

FLOWAGES.—We are informed, by letter and otherwise, that the proprietors of the dam across the Concord River at North Billerica, have been busily engaged in obtaining petitions to get the act, passed at the last session of the Legislature, for the removal of this nuisance repealed. They have given public notice of such intention. This pertinacity shows how desperately men cling to power when it is once in their hands. This dam,

in the opinion of the last Legislature, operates as a public calamity, destroying a vast amount of property and spreading desolation and death through one of the most lovely and fertile regions of the State. The people living in the towns bordering on the meadows that are flowed, have battled with this power for forty years, and have not yet been able to receive *a single dollar* for damages, although their grass crop has been annually cut off, and sometimes whole families have been prostrated with sickness occasioned by the malaria arising from the rotting masses of vegetable matter lying upon the meadows.

We also learn that the citizens of Wayland held a town meeting on Monday of last week, in view of the action in this matter. The meeting was a large one, and it unanimously voted to remonstrate against the repeal; the selectmen were authorized to act as agents for the town, with power to employ counsel and do anything else which in their judgment they may deem necessary to secure action under the law of last year.

The citizens of Sudbury, we learn, are to hold a public town meeting in relation to the matter, and the people of all the towns in the Sudbury and Concord River Valley are still determined that this wicked monopoly shall be abated.

#### CATTLE DISEASE IN SOUTH AFRICA.

Below we give an extract from a letter written from South Africa by the Rev. LEWIS GROUT, to a brother in West Brattleboro', Vt. We hope, however, there will be no necessity for any one to avail himself of the information contained in it.

UMSUNDUZI, SOUTH AFRICA, SEPT. 16, 1860.

DEAR BROTHER:—I see by the papers the same disease which we have had here for six years is now in Massachusetts, making a good deal of commotion, as well it may. Among cattle or cows it is very contagious and fatal. Only about one in twenty-five recovers or escapes, after being once exposed with diseased cattle. The few which recover are not liable to the second attack. The only remedy in this country is inoculation, by which three-fourths, or at least, one-half, are usually saved, about one-quarter dying of inoculation unless the thing is very successful. In this country those who are obliged to go about with oxen must first inoculate, so also must those who are surrounded by disease, so as not to be obliged to keep the cows from contact with those that have the disease. The mode of inoculating is to make a small puncture or incision in the end of the cow's tail and insert a little of the liquid, or a small bit of flesh, from the lung of an animal which had the disease and died of it, or rather was killed and found to be diseased. Sometimes a thread is drawn through a diseased lung, and then inserted under the skin just so as to be in contact with the blood. In a few days the tail begins to swell; the swelling sometimes

goes up the body so as to cause death. The disease does not show itself under five weeks after exposure. The first sign of the disease is hard breathing, with a turning up and contraction of the nose at each inspiration. I should not inoculate until compelled to do so, either by finding that my cattle had been actually exposed, or were sure to be so, though no time should be lost after an actual exposure; otherwise inoculation will do little or no good. If the people will set about stopping the disease in right earnest, they can do so, otherwise it will go through the country. The best season to inoculate is in the spring, when cattle are relaxed, as that helps keep the body open and check inflammation.

LEWIS GROUT.

#### AGRICULTURAL QUESTIONS.

BY JOHN DIMON, WAKEFIELD, R. I.

MR. EDITOR:—Having decided to spend the remainder of my days on the farm and in the capacity of a farmer—and as it is less expensive to buy the best stock and tools, and to do work in the best manner, and as there are hundreds of young farmers in New England who are in want of a certain kind of agricultural information, I have concluded to send you a string of practical agricultural questions, which I wish you to publish in the monthly *Farmer*, with such answers and remarks as the merits of the case require. And by so doing you will confer a great favor—not only on me, but on others in similar circumstances.

1. What kind of plow do you consider best for a smooth, sandy-loam farm?

REMARKS.—*Plow for a sandy-loam land.*—We should say Holbrook's Universal plow, *stubble* mould-board No. 152, and *green-sward* mould-board No. 122. This stubble plow has a wonderful power of lifting up and disintegrating the soil. We have seen it in use where, if a common-sized man should lie down in the furrow, the next one turned would well nigh cover him over. The sward mould-board is equally effective in breaking up. In skillful hands it may be made to lay the furrow entirely flat, or to give it the slightest lap, if the operator prefers this mode of leaving it.

2. Where land is rather light and cold, and has not been highly manured, how deep should it be plowed to obtain the best crops?

*How deep to plow.*—Land that has received only shallow plowings for many years should not have the surface turned under deeply at once, unless a large amount of manure is added. The black soil being low down, affords no support to plants early in the season, and as they do not find nourishment in the new soil, they are not matured and the crop is lost. To answer your question directly, we should say that a depth of six inches would be likely to return the best crops on such a soil, where the manuring is to be light. Will you experiment by plowing at different depths, mak-

ing all other things equal, and give us the results?

3. Is it really advantageous, and will it pay, to subsoil land for general crops?

*Subsoiling for general crops.*—There is no doubt on our mind but that subsoiling on clayey and granitic lands, where crops of wheat, barley, oats and Indian corn are cultivated, would be a profitable practice. It would be one of the processes making up a thorough cultivation, and we believe it is generally admitted now, that to cultivate a less extent of land, and cultivate it well, always secures the most favorable results. Instead of cultivating two acres of heavy land in corn, expending forty-five days' labor and thirty ox-loads of manure upon them, put all the labor and all the manure upon one acre, making *subsoiling* one of the items of culture on the one acre. Give the same time to the one acre that would be given to the two, in hoeing, and exterminating weeds—and we believe an exact account will, in nine cases in ten, show a balance in favor of the *one* acre.

The use of Mapes' subsoil plow in passing between the rows of corn, potatoes, beans, or any of the hoed crops where it can be admitted, is highly advantageous. It moves the ground below, without much disturbance to the surface, and when run between the rows both ways, leaves the field mellow and light, as a root bed for the plants, and the soil in a suitable condition to be greatly benefited by all atmospheric influences.

4. Being confident that much grass seed is annually wasted by not being properly covered in the soil, I wish to inquire the best method of "getting in" the different kinds of seed; both clover and the finer grasses?

*Getting in grass seed.*—There is much waste in sowing grass seed by hand, as the person having both skill and long practice will be scarcely able to sow a bushel of timothy seed without overseeding in some spots and leaving others without a due portion. If there is wind at the time of sowing it makes the operation still more difficult; a little loss, therefore, at each annual sowing, would soon amount to an aggregate sufficient to purchase the best machine, which would last for generations.

In the monthly *Farmer* for June, 1858, we gave an illustration of *Wells' Seed Sower*, and expressed an opinion of its merits. It costs but \$4,00, and its use will save that sum on any well conducted farm in two years, in time and seed. If the proprietor of *Calhoon's Seed Sower* will send us a good illustration of that machine, we shall be glad to publish it in these columns.

After grass seed is sown, it is not a commendable practice to leave it so near the surface as is

usually done. It should be harrowed in at least, so that it may get root hold in the soil before the blade appears above ground. A slight brush-harrowing is not sufficient. After harrowing, the brushing should be done by confining white birches, or other saplings, to a piece of joist three by four inches and pass over the field in both ways; and if the team is sufficiently strong, add a little weight to the joist, so as to compress the earth a little; this practice will answer pretty well without the use of the roller. But the roller should be used where it can be conveniently. The observing farmer has noticed that seed comes best, and is the strongest, in the tracks made by the team in harrowing.

5. Will it pay to buy oyster shells at two cents per bushel, three miles from home, to burn for manure?

*Oyster shell lime.*—We have known oyster shells drawn eight miles by team—when returning from market,—converted into lime and used on exhausted farms with profitable results. The shells were pitched into a corner where two heavy stone walls came together and placed with alternate layers of brush and other cheap wood of the farm and burnt. The proprietor thought he was greatly indebted to this lime in bringing back the farm to a state of fertility. If we should advise, it would be to make trial of the shells, keeping an accurate account of cost, and strictly watching the results.

6. What is the best method of applying ashes to a corn crop?

*Ashes for corn.*—Forty years ago it was the practice to apply ashes to the hills of corn at the first hoeing, throwing it in among or directly upon the young plants. We cannot see that any one mode of application has decided advantages over another. Ashes are of great value to the crop, and if applied broadcast upon the field before harrowing, or before the first hoeing, the plants will be quite sure to feel their influences before they come to perfection.

7. I want, next spring, some light manure, similar to poudrette, to use in the hill for corn. Something that is strong and easily applied, and something I can manufacture at a less expense than to purchase poudrette from the Lodi Manufacturing Company at about \$1,75 per barrel here. How shall I manufacture a home-made poudrette?

*Something to manure with in the hill.* Our correspondent has taken a proper view of the matter in devising some method of fertilizing corn plants in the hill. In our short seasons, the corn crop often fails to come to maturity for the want of an early and vigorous start in the spring. The tender plant needs something immediately about its roots to push it along and bring out its

broad leaves for atmospheric influences to act upon and perfect it before September frosts occur. A liberal broadcast manuring is not sufficient for this, and so we want something that is cheap and portable, that every farmer may have it to drop into the hill before covering the corn, to impart warmth to the seed, and quicken it into vigorous action.

One way to accomplish this end is this. Collect all the night-soil that can be procured through the summer from time to time, and mix it with fine, old meadow muck and sprinklings of plaster; occasionally pour sink water over it, making it so moist as to become of a pasty consistency, and then work it thoroughly with the back of the hoe, as mortar is worked, so that the night-soil and the muck shall be completely incorporated. Do this three or four times in the course of the summer and autumn, always leaving the heap well covered with loam. If muck cannot be had, use alluvial soil, or the finest loam and sprinklings of plaster. Before freezing weather gather the heap into barrels and place it away from the frost. A handful of this compost in the hill will make *you* laugh, if it does not the corn.

*Another way.*—Place the roosts for the fowls in such a position that all their droppings can be conveniently reached, and each morning, or three times a week, cover them with fine muck, loam, sand, or plaster. Keep the whole dry, and use half a pint to a hill. If you have this, you need not sigh for guano.

*Still another.*—Take an old cask, such as a molasses hogshead, mix a bushel of plaster with old muck enough to fill it, and saturate the whole with urine from the barn cellar or from any other source. Continue to pour on the urine freely from day to day, until the escape of ammonia is detected, and then discontinue it. The contents of the hogshead may then be taken out and the operation repeated to any extent desired. In this operation the sulphuric acid in the plaster will combine with and fix the ammonia escaping from the urine, and the mass will be a portable, active and highly fertilizing agent—one that every farmer may have.

8. As all farmers are liable to sometimes lose an animal either by age or accident, how can they make a dead carcass most available and profitable for manure?

*What to do with a "dead carcass."*—A dead horse may be made more valuable than most farmers are aware of. A man has about one pound of ammonia, it is stated, for every fifty pounds of his weight. If the same rate holds good with the horse, one weighing ten hundred would yield twenty pounds of ammonia. We have been taught that this substance is one of the most val-

uable fertilizers that the farmer has, so that if this particular part were all, the dead horse or ox would be valuable. If the dead animal were cut into pieces, sprinkled freely with plaster or charcoal dust, and the whole mass covered plentifully with meadow mud, at the expiration of a year it might be in condition to be overhauled and incorporated with the muck. The bones should be collected and placed with other bones to be converted into phosphate of lime when enough of them are obtained to make the job a profitable one.

9. What crop is best to help out winter fodder—corn, millet, or roots?

10. Will it pay for farmers to cultivate roots for stock in winter, and if so, what kind of roots will pay best?

*Crop to help out winter fodder.*—There is nothing more sure, or scarcely anything better, than oats, cut just as the seed is forming, and cured mainly in the cock, under caps. Millet is a good crop, and it may be sown later than oats. We commend the culture of roots, to some extent, on every farm. Most of the work may be done by horse power, and the crop may then be obtained at a cheap and profitable rate. Stock greatly needs some succulent food to go with the dry fodder which comprises the principal part of their winter food. By a little inquiry every farmer may ascertain how to raise Swedes, carrots and man-golds as a profitable winter feeding. This paragraph replies to your 9th and 10th questions.

11. Will it pay for a small farmer to own a mowing machine; say on a farm of twenty-five acres to be mowed?

*Mowing Machines.*—Yes. A good machine will pay for itself in a few years.

12. What kind of mowing machine is best for a light, smooth farm?

*What mowing machine is best?* There is no mowing machine out of the dozen we have tried that stands out so pre-eminently above all others as to justify us in saying that it is the best. The Ketchum, Wood, Manny, New England, and we do not doubt, some others, may be used with decided economy on smooth farms.

Now, brother DIMON, having answered your questions candidly, and as fully as space will permit, will you, if the answers do not commend themselves to your views, express them yourself, and send them to us for publication.

**ELECTRICITY.**—A writer for the *Rural American* says that some of his scientific neighbors have suggested that there may be some connection between the abundant crops of this year, and the abundant electricity manifested in our frequent thunder storms.

*For the New England Farmer.*

"LABOR IS KING."

MR. FARMER:—

This is a very busy world,  
The earth upon its axis twirled,  
Rolls constant round without cessation,  
And never stops for recreation;  
E'en steady Sol is in the practice  
Of trundling round upon his axis,  
And winter solstice shortened days,  
And lengthened nights, and his slant rays,  
Secure bring brief rest and lessened labor,  
And time for talk with chatty neighbor,  
Ere high in heav'n he holds his reign,  
And sets all things awork again:  
While madam Luna, she who whilom,  
As one in lunatic asylum  
Displays his antics and grimaces,  
Made up an endless change of faces,  
Gives twice diurnal agitation  
To all the watery creation:  
So Ocean ceaseless ebbs and flows,  
And never rests in calm repose;  
The insect of a summer's day,  
That lives its hour and dies away,  
Spends that brief hour upon the wing,  
A busy, buzzing, bustling thing;  
And so in earth, in sea and sky,  
All things that creep, or swim, or fly,  
For food or fun are onward driving,  
And after some "chief end" seem striving.

But busy more than all beside,  
More restless than the ocean's tide,  
Than earth that trundles on its axis,  
Or moon which nightly wanes or waxes,  
Than insect of a summer's day,  
That hums its hour and dies away,—  
Is man, creation's lower lord.—  
Still, by some ruling passion stirred,  
He traverses both land and ocean,  
And is the trae "perpetual motion."

Then of this busy biped race,  
Which finds on earth its dwelling-place,  
One of the busiest mortals in it,  
With double dose for every minute,  
Is he the tiller of that soil  
Which yokes together tith and toil,  
And yields the treasures of her breast  
Most fully when most freely prest;  
By "sweat of face" he earns his living,  
And works from Fast-day to Thanksgiving.

Aye, works:—let vale and hill-top ring  
With psalm-shout,—"LABOR IS KING;  
And neither cotton, corn or coin,  
That regal honor may purloin,  
Or, unpresumptuous, claim to share  
The crown which this alone shall wear.  
Shall the thing made condemn its maker?  
The saw lift up against its shaker?  
The axe vainglorious, abuse  
And flout the hand that with it hews?  
The stream unwise, the fount deride  
Whence all its waters are supplied?

LABOR IS KING:—by that ungraced,  
Earth were a wild and cheerless waste;—  
Not mere brute toil, as 'neath the goad  
The ox, unreasoning, drags his load,  
But thinking, free, which gives combined  
The product of the hand and mind,  
Of finest web a brain-work weaves,  
Yet in stern conflict never grieves  
With life's material ills to justify  
Nor shames to "travel on its muscle;"  
Wipes his swart brow anon, thus while he  
Unites the *culce* and *utile*.

LABOR IS KING:—long may he reign  
Life, comfort, beauty, grace his train;  
The forest bows beneath his stroke,—  
Then fair, as when creation woke  
On Time's first morn, transformed the scene,  
Stretch wide the "fields of living green."  
Broadcast in Spring he sows the seed;  
Garners earth's stores for winter's need;  
He guides the plow, and plies the flail,  
With lacteal treasures fills the pail,  
With vigorous arm the scythe he swings,  
Hard by the boblink blithsome sings,  
The harvests bend wh'er'er he goes,  
And deserts blossom as the rose.  
He spans the hood, or climbs the steep,  
Brings treasures from "the vasty deep;"  
His hand unfurls the whitening sail,  
And straight the canvass woos the gale;

He guides his bark through every zone,  
And all earth's bounties makes his own.  
Seeks he a path?—he bows the hills,  
Anon the yawning valley fills,  
(Or just, perchance, for double sport,  
Bores Hoosic and the General Court,)  
Bridges the stream, with mighty tide  
Of twice twelve furlongs stretching wide,  
His steed of fire yokes to the train,  
Then bids it smoke along the plain,  
Far sundered dwellers bringing near,  
And time and distance disappear.

Honor to toil; but toil is blest  
But as it brings alternate rest;  
The shaft with half its force is sent  
Sped from the bow that's ne'er unbent;  
Sweet is the task the daylight knows,  
Because it brings the night's repose,  
While turns the tide, with lessened roar  
The surf-wave breaks upon the shore;  
The hen makes noisy demonstration  
After her laying operation,  
And cackling sets all hen-creation,  
But quiet sits through incubation,—  
(Unworthy of her henslip's praise  
The rhymester cackles in his lays;)  
The kind command to man from heaven,  
Was work for six days, not for seven,  
And the first pair unstained by vice,  
Had Sabbath rest in Paradise.

And now, with stillness half sublime,  
Comes *Nature's* peaceful Sabbath-time;  
Beneath its wintry vestment sleeping,  
Earth hath no floweret up peeping,  
No bursting germs to life appear,  
No blade, or full corn in the ear.  
No song of birds, no insect's hum,  
No joyous shout of harvest home;  
Where the green leaf and clustering bough  
Were late, the wind-harp sigheth now;  
Life yields to death:—yet deep in earth,  
Whence all this being had its birth,  
Life's vital forces in this hour  
Of seeming death, renew their power,  
And soon the resurrection Spring  
Her robe of green o'er'er all shall fling.

Man, nature-taught, his labor stays,  
With grateful heart the past surveys,  
Then, hopeful, for the coming cares  
With cheerful zeal himself prepares.

How was that year, now run its round,  
With overflowing plenty crowned;—  
Down pressed, up-filled, each bin and bay,  
With golden corn, or fragrant hay,  
Till, like the prophet's gift of old,  
No room was left the boon to hold.  
The year which dawns, may this be blest  
Like that, and Nature's bosom prest  
By labor's hand her increase yield;  
On meadow and on well tilled field  
The springing grass and corn appear,  
And "grow like sixty" [60] through the year

And he, who draws with skillful hand  
The treasures from the willing land,  
May be, the tiller and the toiler,  
(He is your genuine Free-Soiler,  
'Twas men like him, that toil and till,  
At Concord and at Bunker Hill,  
When foes with foes in strife were blended,  
New England homes and hearts defended,)  
Be blest in basket and in store,  
His garners aye be running o'er,  
His oxen strong for labor still,  
His meek-eyed Durhams flowing fill  
His brimming pails with foaming wealth,  
His own cheeks mantle yet with health,  
And sons and daughters, fair and able,  
Like olive plants be round his table.

And she, his lot who joyful shares,  
Partakes his comforts and his cares,  
The farmer's wife—no prouder name  
Belongs to queen or titled dame,  
Safe in her trusts her husband's heart,  
She gives her maidens each a part,  
Her hands the distaff skillful hold,  
She feareth not the snow or cold,  
But riseth ere the morning light,  
Her candle goes not out by night,  
She gathereth stores of flax and wool,  
Of self-wrought robes her drawers are full,  
Her Goodman standeth in the gates,  
And for her sake praise on him waits—  
May she, her helpmate's honest pride,

Long, more full at his hour I preside,  
And, thrifty, for that beard prepare  
The profits of his toil and care.—  
He but a come with little churning,  
Her joint and her crisp for lack of turning,  
With golden chimes all arow,  
And shining pans her shives still clog,  
And thus through all the household border  
Be seen the reign of law and order.  
May she be blest with sense and skill  
To rule and rule her household well,  
Preserve her plighted *honeysuckle*,  
And keep her husband neat and tidy.

The farmer's boy,—that sturdy fellow,  
No pot-bellied, growing in the cellar,  
No top, unwishing higher bliss,  
Than measuring tape for simpering miss,—  
The summer sun his face embrowned,  
But rarely tints his cheek and round,  
His youthful ana,—all nerved with strength,  
Stalwart shall swing the scythe at length,  
And so when old King Labor fails,  
Here is your Nature's Prince of Wales.  
Ere the bright sun at rosy dawn  
Had kissed the dew drops from the lawn,  
Fresh as a lark he left his bed,  
Went forth the fragrant swath to spread,  
Then found at night that sweet repose  
Which useful industry best knows.  
Through all New England's rock-bound coast,  
Such youth her rugged hills can boast,  
Trained to intelligence and toil;  
'Tis these that freedom's foes shall foil,  
And cause her as of yore, to be  
The dwelling of the brave and free;  
Still to like hands, through every age,  
Transmit the glorious heritage,  
And, blest of heaven, see that she stands,  
Through time the glory of all lands.

The farmer's daughter—last not least,  
As the best wine concludes the feast,—  
In vain my pen its task essays  
In fitting words to speak her praise.  
If Nature e'er herself surpasses,  
And "prentice han" made not the lasses,"  
If Eve came, after man's formation,  
The *ne plus ultra* of creation,  
Of Eve's fair daughters since the fall,  
Behold the cap sheaf of them all!  
No Miss MacFlimsey, caught by glare,  
With forty robes, yet none to wear,  
Be-rinsed, bedecked in gay attire,  
While wise men weep and fools admire,  
Living in pleasure—truly dead,  
Trusting some moustached ape to wed,—  
(Perhaps my simile a breach is  
Of justice to the baboon species.)—  
Not such our maid;—to nature true,  
Fresh as the morn, than early dew  
More sweet, more pure, her fair cheek glows  
With tints which quite outvie the rose,  
She, graceful as the springing fawn,  
Half flying trips across the lawn.  
Yet beauty is but half her praise,  
Not useless pass her gladsome days;  
With ready hand her part she bears,  
Helpful, in all the household cares,  
Well fills her mind with useful store  
Of gems of thought, and craves yet more.  
Heaven's choicest blessings on her rest—  
With visions bright her dreams be blest;—  
Should the blind god with soft thoughts fill her,  
The robe she dons, be a mantilla, [man-tiller,]  
And then she finds in due progression,  
The union that knows no secession.

But I must stay my errant pen,—  
The longest sermon has Amen,—  
And so your servant here presents  
His most devoted compliments:  
Please find enclosed therewith two dollars,  
(The *quid* precedes, the *quo* it follows,  
And still for aye with double zest  
The thing that's paid for is possessed.)  
And, that we have through all the year  
Your teachings wise our path to cheer—  
Your sun, by which to light our taper,  
Please send *The Unabridged* the paper.  
*Springfield, January 8.*

WHY DO ANIMALS NEED SALT?—Prof. Jas. E. Johnston, of Scotland, says: "Upwards of half the saline matter of the blood (57 per cent.) consists of common salt; and as this is partly

discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda (one of the ingredients of salt) as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore, and neither will the bile be able properly to assist digestion, nor the cartilages to be built up again as fast as they naturally waste."

It is better to place salt where stock can have free access to it, than to give it occasionally in large quantities. They will help themselves to what they need if allowed to do so at pleasure; otherwise, when they become "salt hungry," they may take more than is wholesome.

For the *New England Farmer*.

### SQUASHES.

The 7th of 5th month, (May,) I planted in my garden ten hills of Autumnal Marrow squash seeds on two square rods of ground, which allowed fifty-four square feet to each hill. I manured with a compost of night-soil and fine chip dung, about a peck to a hill. About the time they began to run, I thinned to three or four in each hill, and through the season whenever a vine overran the fixed bounds, I cut it off. I harvested the produce the 26th of 9th month, (Sept.) a day or two before frost killed the leaves. I found sixty-five in number, weighing 730 pounds, at the rate of twenty-nine tons per acre. A pretty good yield, I thought, and one which would pay well if a person lived near a market, but here they are worth nothing except to use in one's family, and to feed to cows. Several of them weighed 20 pounds, and two weighed 21½ pounds each.

A week or two later I planted a few hills of seeds given to me by a friend, and said to have been taken from a Hubbard squash. I planted them in my field, at a considerable distance from any other vines; manure similar to that used for the Marrow. There was a pretty good growth of vines, but the squashes were smaller than the others, only two or three weighing as many as fourteen pounds. Was this as large as usual? The color was various, generally of an ashy or pale green, a few were quite dark, and one or two had yellow stripes. Shell very hard, quality excellent, very dry and rich.

Are they probably, the real Hubbard squash?

L. VARNEY.

*Bloomfield, C. W., 11 Mo., 1860.*

REMARKS.—The true Hubbard is not a large squash—not weighing more than six to ten pounds. Oblong, color dark green, with a rough or knobby surface.

SURPLUS OF WHEAT IN ONE STATE.—A committee appointed by the Wisconsin State Agricultural Society to canvass the grain districts have estimated the wheat crop of Wisconsin at twenty-two millions of bushels, and the home consumption at six millions, leaving a surplus for export of sixteen millions of bushels.



## RURAL ARCHITECTURE.

DESIGN FOR A SUBURBAN RESIDENCE, BY GEO. E. HARNEY, LYNN, MASS.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

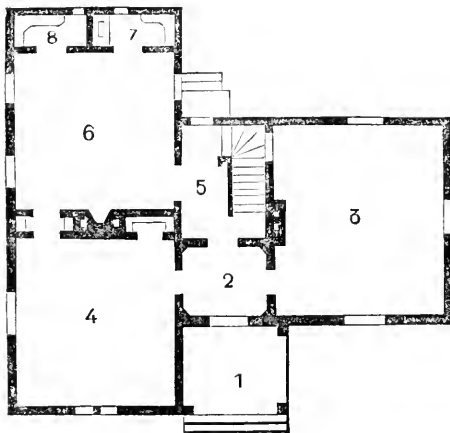
We give this month another design for a suburban or village residence. It is a fair specimen of the Italian style, so modified as to meet the wants of our country and climate. The style is characterized by the low pitch of the roof, the broad, open character of the trimmings, and the introduction of the round arch for the heads of the windows, piazzas, doors, &c.

The plan is arranged as follows: From the portico, No. 1, by means of double glazed doors, we enter the vestibule, No. 2. This opens on the

left, into the dining-room, No. 4, and on the right, into the parlor, No. 3. Directly in front, a sliding glass door opens into the hall containing stairs to the chambers and cellar. The living, or dining-room has a good sized china closet, and connects, by means of a small passage on the left of the chimney-breast, with the kitchen, No. 6. This room is fourteen feet square, is conveniently placed, and well lighted, and opens directly into the staircase hall, No. 5. No. 7 is a pantry, furnished with a pump, sink, and shelves, and No. 8 is a good sized store closet, with shelves. The vestibule measures 6 feet by  $7\frac{1}{2}$  feet; parlor, 15 feet by 17 feet; living-room, 14 feet by 15 feet.

The second floor furnishes three large chambers, a bathing-room, and several closets.

For the interior finish of the several rooms, we would recommend something like the following: The wood-work of the vestibule and dining-room to be a wainscoting two and a half feet high, with standing finish to correspond; this, together with the wood-work of the kitchen, to be oiled and varnished, showing the natural color and grain of the wood. The walls may be papered with some neat, modest pattern of panel paper, and the floor covered with painted oil carpeting of colors to correspond.



The parlor should have a lighter, more cheerful tone than the other apartments. The wood-work painted some pleasing tint or tints; the paper a small, lively figure on a light ground; and the carpet a small mosaic figure on a darker ground; all, with the window and table drapery, to harmonize in color, and as far as possible in the style of the figures.

A table or two in convenient places, that one may not be afraid to lean upon; a few wholesome chairs that one may sit in, aye, and tip back in, Yankee fashion, if he choose, without fear of finding himself all of a sudden in closer proximity to the floor than he might wish; a bookcase filled with *good* books in substantial bindings—books for use, and not for show; and finally, a few good pictures hung against the walls. This is the treatment we would suggest for the parlor.

The kitchen may be perfectly plain; the wood-work as before specified, oiled and varnished, and the walls tinted, or papered with a cheap paper, and varnished.

Each chamber may have its own peculiar style. Whole sets of chamber furniture may be procured in every variety of tint and finish, and by selecting the carpets, paper and drapery to correspond, we may have the blue chamber, the pink chamber, the drab chamber, the lilac chamber, and so on; or by selecting them with reference to some prominent figures on the paper, carpet and furniture, we may have the landscape chamber, the rose chamber, or if clusters of flowers, the bouquet, or the floral chamber, and so on through an almost infinite variety of changes, paying especial attention all the while to the harmony of the colors throughout, keeping that entire, at the expense of everything else, if need be.

*Construction and Cost.*—Built of wood, and covered with clapboards or sheathing, the cost of this cottage in the neighborhood of Boston would be about \$1100.

**RAISING CALVES.** — Mr. J. A. Edwards, of Skaneateles, N. Y., gives in the *Rural New-Yorker* his process, as follows:

“Remove the calf from the cow at the age of two or three days, give it new milk for two or three weeks—four or five quarts at each meal—twice a day. At the end of that period commence giving milk skimmed after twelve hours, once a day,—in one week, omit the new milk and give only skimmed milk. As they advance in age, the milk may be allowed to stand a longer time before skimming. Instead of giving meal and turning out to pasture, as is usually practiced, I prefer keeping them in a large stable, allowing them to run, and feeding all the fine rowen or nice clover hay they will eat, with skimmed milk, or whey, for drink, until they are five months old. If the stock is good, my word for it, you will have calves worth showing.”

#### FLAX COTTON AGAINST KING COTTON.

A private letter from Boston thus speaks of the recent invention for “flaxing out” king cotton:

“There are now in operation in this city experimental works for the manufacture of flax fibre into a material called fibrilia, or flax cotton. This can be produced in *any quantity* at between seven and eight cents per pound, and the cloth made from it is better in every respect and will take and preserve colors better than cloth made from cotton. The raw material, flax wild or cultivated, can be produced and is produced in Canada and all the Northern States in vast quantities. Colonel Lander, in one of his recent reports speaks of coming to plains covered with immense quantities of this plant growing wild. Now here is an article which even now can be had in quantities, so that its material can be produced at from two to three cents per pound less than cotton, which makes a better cloth, and which is destined to supersede cotton. Slowly but surely the parties owning the patents for the process for manufacturing this article are working it into the attention of our people.

The first mill started to manufacture cloth from this material will be the most dangerous anti-slavery society in the world.

With this I send you some of the article and some of the cloth made from it; also a pamphlet describing it. Some people are looking to this matter as offering a solution of the slavery question. Napoleon I. offered one million francs to any one who would invent machinery to manufacture flax by spinning it into cloth.”—*N. Y. Post.*

#### MASSACHUSETTS HORTICULTURAL SOCIETY.—

The Society held a meeting on Saturday, at which the President, Joseph Breck, Esq., made a brief address, which is to be printed in the regular transactions. The report of the Committee on Finance was then made and accepted, showing a balance in the treasury of \$940 83, and that the property of the Society amounts to \$89,540 83. An appropriation of \$500 was then voted for the library during the coming year, and a further appropriation of \$75 was voted to be applied by special committee to the purchase of a suitable testimonial to be presented to Mr. R. M. Copeland, as an acknowledgment of his long and faithful services as Librarian.

After considerable discussion, a vote was passed to petition the Legislature for a grant of one section of the public lands at the foot of the Common, whereon to erect an edifice for the purposes of the Society.

**MOWING MACHINES.** — Mrs. ELIZABETH M. SMITH, of Burlington, N. J., has invented a contrivance for making the mowing machine more safe than heretofore. It consists in a method of throwing the knives *out of gear* the moment the driver's weight is removed from his seat. When he resumes his seat, the machine is thrown *into gear again*.



*For the New England Farmer.*

### CULTURE OF STRAWBERRIES.

GENTLEMEN:—The time has come that I must renew my subscription to the *New England Farmer*, monthly. I like the work very much; it is a cheap work, considering its value. Farming is my business, although I have quite a small farm.

Of late I have paid some attention to the raising of strawberries. I have now one-third of an acre on the ground, which I set last spring, in rows of four feet apart, and about one foot in the rows. They are Hovey's and Boston Pine. I am confident that they would have covered the ground all over, had I set them out 5½ feet instead of four, and two feet in the rows. The land is a light soil, such as corn and rye do well on, when highly manured. For some thirty years or more, it has been used for corn and rye, alternately. One year ago last fall I carted on mud and clay so as to cover it 1½ inches, and during the thaws in the winter, I knocked it to pieces, and spread it evenly over the ground. The succeeding spring I plowed it and harrowed in 30 bushels of unleached ashes. The last part of April, as soon as the ground was suitable to work, I set out my plants; nearly all lived, but it was a long time before they made much headway, for the reason that the cut worms kept eating off the plants as fast as they grew. They finally came on and grew finely. I sowed flat turnip seed between the rows, and had 40 bushels of turnips. They did not interfere with the strawberry vines, as I wanted a vacancy between the rows. There were a very few strawberries. In the fall, at the last hoeing, I sowed on two casks of air slacked lime and four bushels of coarse salt, and lastly covered them up with salt hay. They are now free from weeds. It is my intention to thin and hoe them next spring.

Will it pay to do so? I understand that many do not hoe them at all in the spring.

I now send you a dollar for the next year's monthly. It paid well last year, and I believe it will this; I wish all the farmers in the good old town of Pembroke would take the *New England Farmer*. I know it would be a dollar well spent.

*Pembroke, Dec., 1860.* OTIS P. JOSSELYN.

REMARKS.—If you cultivate the strawberry, there can be no doubt but it will be profitable to cultivate it well. We do not believe in permitting a struggle for the mastery between weeds and the plants that we have set. Whether you will find your strawberry crop profitable or not will depend considerably upon the skill you possess as a market man.

THE BEE ANNOYANCE.—Since the extensive importation and production of bees in California, they have become, in many respects, a source of great annoyance. The housekeeper, in cooking, the grocer and fruit-dealer, all have them swarming by hundreds, and perhaps thousands, around their premises, rivaling the house fly in troublesome propensities. A Sacramento coal dealer recently obtained a quantity of coal which had a cask of molasses broken over it. When the coal was brought into the yard, the bees collected in such

quantities that he spent half a day with a hose in washing off the coal in order to remove the temptation. They have partially destroyed the produce of several vineyards near Sacramento; when the grapes were gathered, it was found that the little thieves had extracted the juice. As a matter of course a large number of bees are necessarily destroyed while poaching on the forbidden ground. Is there no remedy for these difficulties? asks the *Sacramento News*. Can bees be kept from annoying everybody but their owners, and at the same time preserve their own lives, or must the evil complained of continue to increase in magnitude?

### STATE BOARD OF AGRICULTURE.

A meeting of the State Board of Agriculture was held at its Rooms in the State House, Tuesday, 8th inst. There was a full attendance of the members. His Excellency, Gov. ANDREW, presided, and on taking the chair made a few appropriate remarks, manifesting a lively interest in the cause of agriculture, and pledging himself to do whatever was in his power to make this branch of the Government efficient. He expressed a lively interest in the objects of the Board, and said that he inherited a love of the occupation, as one presenting the leading importance in our industrial pursuits. The Lieut. Gov., J. Z. Goodrich, was also present, and, on being called upon by the Governor to preside while he was absent for a few moments, expressed his interest in the noble art, and his desire to co-operate with the Board in promoting the interests of our agricultural industry.

After some general discussion in relation to the records of the last meeting pertaining to the Hampden Society, a report was made by Mr. DAVIS, of Plymouth, in relation to this society, which was laid upon the table. The discussions were in regard to the change of time made by the Hampden Society, such change being contrary to law.

In the afternoon, Dr. J. BARTLETT, of Chelmsford, reported upon the Exhibition of the Middlesex North Society, stating that the exhibition was a successful one, and that this Society will soon be one of the strongest in the State.

Mr. BUSINELL, of Sheffield, reported upon the Exhibition of the Plymouth County Society. No cattle were exhibited. Mr. B. also read a report upon the Exhibition of the Housatonic Society.

Mr. STOCKBRIDGE, of Hadley, made a report upon the Exhibition of the Middlesex Society.

Mr. DAVIS, of Plymouth, made a report in relation to the laws enabling Societies to protect themselves on the days of the Exhibition. The committee advised the Board to recommend to the Legislature to pass a law in substance like the following:

“Whoever, during the time of holding any ex-

hibition of an agricultural society, or Farmers' Club, or of any public Market Fair held at stated intervals upon regular Market Days, and within one-half mile of the place of holding the same, without the permission of the authorities having charge of the same, who shall designate the place of sale or exhibition, hawks or peddles goods, wares, or merchandize, or establishes any tent or booth for vending provisions or refreshments, or practices or engages in gaming or horse-racing, or exhibits, or offers to exhibit shows or plays, shall forfeit for each offence a sum not exceeding twenty dollars, provided that a person having his regular and usual place of business within such limits, is not hereby required to suspend his business." A committee was appointed to obtain the passage of a law securing these points.

Mr. GRENNELL, of Greenfield, made a report upon the Exhibition at Martha's Vineyard, which gave a somewhat detailed account of the geographical and geological character of the island, with a statement of the increase or decrease of the products of the soil since 1855.

On motion, it was voted that the Secretary of the Board be invited to make motions and discuss subjects as he may choose from time to time.

#### WEDNESDAY, SECOND DAY.

Board met at 10 o'clock. Col. WILDER in the Chair. Mr. FAY offered the following resolutions:

*Voted*, That the Secretary of the Board be directed to call the attention of the Mayor and Aldermen of the cities, and Selectmen of the towns of this Commonwealth, on or before the 20th of April, annually, to the law for the protection of sheep against dogs, and urge its enforcement.

That the Secretary be also directed to ascertain, on the first of October, annually, from the cities and towns of the Commonwealth, the number of dogs licensed, and the amount received therefor.

Professor CLARK, of Amherst, read a long and highly interesting report upon HORSES, which, upon some points, elicited long and earnest discussion.

#### THURSDAY, THIRD DAY.

Dr. BARTLETT, of Chelmsford, reported upon the destruction of woodlands and other property by fires, suggesting that the Board recommend to the legislature to provide certain regulations that shall be observed by every person before setting fire to brush or wood lands.

Mr. R. S. FAY, of Lynn, from the committee on *Agricultural Education*, reported what the committee had done in relation to an *Agricultural Manual* for the use of common schools. An interesting discussion followed, in the midst of which, Mr. STOCKBRIDGE, of Hadley, introduced the following resolution.

*Resolved*, That in the opinion of this Board, the time has arrived for the inauguration of measures tending to the establishment of an Agricultural School of high grade, under the patronage of the Commonwealth."

This resolution led to a long discussion, calling out decided opinions both in favor and against such a measure, and the following was adopted in its stead:

*Voted*, That a committee of three be appointed to propose some plan by which an agricultural school may be established in this Commonwealth.

Mr. DAVIS, of Plymouth, reported upon the resolutions offered by Mr. BROWN, of Concord, at the last meeting of the Board in relation to the flowage of lands.

Mr. FAY observed that this was a very able report on a most important subject—a subject which for years he had considered. He said that circumstances had much changed since the passage of the various laws authorizing and protecting mill privileges, because land had all the time been growing more valuable, and water power less important, from the improvements in the use of steam. He also expressed the belief that many of the most flourishing and improved water privileges were not worth as much as the land they destroyed by flowage. That in many instances it would be desirable to have the water privilege appraised, purchased, and the dam removed by the land owners above it, making thereby an operation profitable to themselves, the owners of the water-power and the community, but that while there was a law for taking land for water privileges, there was none for relieving the land in any way from the injury created.

We have already occupied so much space that we cannot give this report at present, but will do so soon. It is a subject which interests the farmer in every portion of New England. The report was referred back to the same committee to recommend to the Legislature a change in the laws of the Commonwealth in regard to the flowage of lands.

Dr. LORING, of Salem, reported upon the Worcester North Society.

Mr. FAY called up the subject of the manual for common schools, which had been laid upon the table for the purpose of introducing another matter, when an animated discussion followed, which resulted in the adoption of the following vote:

*Voted*, To refer the whole subject of the *Manual of Agriculture* back to the original committee, they to present the manuscript to the Board for approval, whenever it is completed.

Messrs. BUSINELL, SEWALL and FELTON were appointed a committee to procure a change in the laws in relation to the weighing of crops.

The Board then adjourned to meet on the 22d inst., then to examine the manuscripts, and take into consideration the expediency of publishing an Agricultural Manual for Schools.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

The second meeting of the Legislative Agricultural Society was held at the State House on Monday evening, and was particularly well attended, all present seeming to take much interest in the discussion.

Col. FAULKNER, of Acton, was appointed Chairman of the evening, and Dr. F. W. MASON, of Dartmouth, was chosen Secretary for the series of meetings.

On taking the chair, Col. Faulkner announced the subject for discussion to be, "The winter management of Farm Stock," and said that beyond returning thanks for the honor conferred on him, he would not occupy the time which he hoped would be devoted to a discussion of the question by practical men.

Mr. S. HOWARD, of Boston, said that the usual food of cattle in the country in winter was hay, with more or less roots, but in cities, or near them, where milk in quantity was the prime object to be gained, the food was more varied. In alluding to the nutriment derived from the different kinds of food for cattle, Mr. Howard read a table of Boussingault in reference to the muscle-forming substances. Taking common hay at 10, as the standard, clover hay would stand 8, rowen 8, green clover in flower 3, straw of different grains 52 to 55, potatoes 28, carrots 35, turnips 61, Indian corn 6, oats 5, oil cake, peas and vetches 2.

Thus the equivalent of a pound of common hay would be about 3 lbs. of potatoes, 3½ lbs. of carrots, 6 lbs. of turnips and 5 or 6 lbs. of straw. The equivalent of a pound of Indian corn 4½ lbs. of potatoes, nearly 6 lbs. of carrots, and about 10 lbs. of turnips.

There was much difference of opinion as to the value of root crops as feed, but he thought decidedly that every farmer should have them always within his reach in good quantities. It is objected by some, said he, that root crops contain too much water, but he could not see where this held good, as grass, and other feed would be liable to the same objection. He had heard some farmers with whom the quantity and not the quality of milk was the prime object, advocate feeding cows on slops, but this he could not speak on, as he had not had experience in it.

The subject of cooking food for cattle had never been fully settled, many condemning the practice as too expensive, even if there was any advantage in the quantity of milk or the growth.

In general it has been found in the case of cattle kept for growth or fattening that it does not pay. In England and Scotland, where numerous experiments have been tried, and where the expense of cooking is much less than here, coal being bought for about 70 cents per ton, none of them paid, and, of course, if it would not pay there it would not here.

In the matter of cooking food for milch cows in winter, there is a difference of opinion now in Scotland, but it is generally thought there that it pays, as they produce more milk. He said he scarcely knew of one farmer in Massachusetts who put up steaming apparatus ten years ago that continued it now. There have been very many and valuable improvements made, and these, he thought, might be used to advantage in some localities. Mr. Howard said that Mr. Birney, near Springfield, has carried on the process of steaming the food for his cows for two winters, and says he is satisfied that it pays, and Mr. Peters, of Southboro', also speaks well of it. The Scotch dairy-men mix up all the food for their cattle, but many people there entertain extravagant ideas in relation to the value of straw for food, and Mr. Mechi, at a meeting of the Central Club, had stated that he could get 16 or 18 lbs. of fat from every 100 lbs. of straw, but when the Club had a chemical analysis made it was found that only 1 to 1½ lbs. could be obtained.

In regard to the relative value of vegetables, Mr. Howard said that it was admitted that potatoes contained the most nutriment, and next came the carrot. This, he said, had medical properties which were not fully known, but there was no doubt that they assisted the digestive organs, as also in forming the mucous coat of the stomach and bowels. Livery stable keepers had told him that they found it profitable to pay as high as \$14 per ton for them, and that half a peck per day, given to a horse, would pay better than the same quantity of any other food; but if horses had been driven hard, the quantity of carrots should be lessened. Many farmers, said he, object to raise carrots, thinking them a small crop, but he referred to a statement of one of the members of the West Springfield Farmers' Club, who had raised carrots for 6 cents per bushel, mangel wurtzel or sugar beet for 5 cents, and turnips for 4 cents.

Mr. Howard said that cotton seed cake had recently been introduced in a new form with much success; formerly it was found that the outer covering of the seed destroyed cattle, but a process has been discovered by which this covering has been removed, and now it is thought as good as linseed oil cake. [Mr. Howard presented a sample of this cake for inspection.]

Dr. COLE, of Cheshire, thought that horses with

hay always before them did not do so well as those to which the quantity was limited. He fed his horses with straw and dry oats, and found them better in every way for it. The trade of a farmer he considered harder to learn than any other, but he thought that, without the aid of science, a man might make an excellent farmer from observation alone.

He spoke of farms in the Hoosac Valley, some of which were formed on lime rock, while others were entirely without it, and where this lime did not exist, it was found that the cattle would eat all the bones they could find, and in lieu of this, the farmers on these lands were in the habit of putting lime in their food. Dr. Cole considered the shelter of cattle in the winter as a very important matter, as also their water. Farmers who had pure springs running through their cattle yards, and who had not to drive their animals a mile or two in the frost and cold daily to water them, other things being equal, would always find them come out better in the spring; cattle subjected to cold winds always requiring more food than those better sheltered. The speaker referred also to the ventilation of barns as a matter of great importance. He said that a neighbor of his owned a large quantity of land on which grew what was termed fresh meadow hay, and this he mixed with a portion of upland hay, and found an excellent feed for young cattle.

Mr. FLINT, Secretary of the Board of Agriculture, was the next speaker. He agreed with Dr. Cole, that one of the most important points in keeping stock in the winter is in sheltering it. Around Boston the barns were too well built, if that could be said, but they have not such good ventilation as they should have, while, throughout other parts of the State, this was the reverse. In North Brookfield, said the speaker, on those farms where the ravages of the pleuro-pneumonia were the greatest, the barns were so wretchedly built that you could poke your fist through almost any part. There was no question in his mind that milk was lost by driving cows out to water on a cold day, and where it was practicable he should prefer to give it them in the barn, with the chill taken off. Although exercise was of decided benefit to cattle he should only let them have it during the warm days of winter.

The fresh meadow hay spoken of by Dr. Cole was of the same character as much in Essex and Middlesex counties, and he thought that swale grasses mixed with hay was sometimes good feed, but he considered oat straw more valuable. For feeding to cows in milk, and sheep, he thought clover well made was the best food. The farmers in Scotland, said he, cut their oat straw before it is dead ripe, and one fault we commit is in letting our grains grow too ripe, and thus lose the

nutriment in the straw. Oats should be cut when the straw begins to be yellow just below the grain, and then the grain is better and the feed is excellent. For feeding milch cows, grasses should be cut just before coming into blossom, and for store cattle when in full flower; the object in curing grasses being to preserve the most of the juicy and nutritious qualities.

Mr. WASHBURN, of Worcester, said he was present as a mechanic, but he wished to call the attention of the Society to a fact in relation to a horse belonging to a baker in Worcester, which was noted for its endurance, appearance and speed, and which was fed entirely on brown bread, and said that during his travels in Switzerland he found they there fed their horses on the same substance. His baker told him that the expense of feeding was much less than on ordinary feed, and he wished at some future meeting to hear the subject of the cooking of food for horses discussed.

Mr. WITHERELL, of Boston, spoke of an experiment made by a farmer in Sunderland, in feeding hogs on cooked and uncooked food, and he found the advantage, if any, to be in favor of the uncooked. He gave lengthy statistics of the relative nutritive and flesh-forming qualities of the different kinds of feed from experiments made by Mr. Fletcher, an English chemist.

Mr. ANDREWS, of Roxbury, said he was in the habit of feeding many cattle for milk, and last year he fed not over two quarts of cotton seed meal to each cow per day, with the best effects, and thought it was the best feed he had found yet, as he got better milk and more of it. In feeding horses he thought too much hay was given. His experience in cooking food had been confined to hogs, and the food so cooked was meal, but he found that his pork cost him 12½ cts. per pound, when he could have bought for 8 or 9 cts. He had been feeding half a bushel of mangolds per cow since the middle of December, and had found no ill effects from it. He gave the cotton seed meal in cut feed, with poor hay, corn stalks, &c.

Mr. WARD, of Fairhaven, said it had been stated that cooking food had not been found profitable, but he questioned whether the manner of cooking it did not make some difference. He spoke of the brown bread experiment, and thought something might be learned from that.

Mr. FISKE, of Shelburne, thought the experiments in England and Scotland would not apply here, where labor could not be had for twenty cents per day; it was as much as farmers could do to cook for themselves, and we were glad to find English hay, carrots, turnips, &c., in the ground for our cattle. We have little knowledge, said he, of chemistry, but we know that there is water

in potatoes, and that there is little fat in straw. We find the cultivation of carrots hard work for the back, and we would rather dig up a little patch after the spring work is done, and sow a few oats, cutting them just as they were headed, and thus procure some good feed at a little expense. The speaker thought carrots were good as a medicine, and for nothing else. He spoke of the importance of keeping calves well the first year, and as a proof of the advantage of doing so, said that one neighbor of his had a pair of steers weighing from 900 to 1100 lbs. each, while another killed a heifer calf which weighed when dressed, 619 lbs. He also called attention to a five or six years old steer owned by Mr. Sanderson, of Bernardston, which now weighs 3500 lbs. He thought we were far ahead of England in consequence of our excellent pastures. In his section of the State, sheep raising was paying well, and there were 2000 sheep in his town that returned \$6 per head, in lambs alone, while the manure was of great value, but of this he proposed to speak at a future meeting.

Col. FAULKNER spoke of an experiment being made by a neighbor of his who had been feeding his cows on English hay, and who is now feeding on meadow hay, steaming it, and warming his barn from the apparatus; and he said he was saving \$8 per ton on hay. The speaker said in reference to the effect of cold weather on cattle, that during the cold days we had about the last of October he kept some cows out three days and nights, and they shrunk one quarter in milk, and it took them four days of warm weather to come back to the original quantity. He objected to a barn heated artificially, and thought the steam from manure was also injurious to cattle.

It having been announced that the subject for discussion, next Monday evening, would be—*“What kind of farming is the most profitable in the different sections of the State?”* and that Hon. JOHN BROOKS, of Princeton, would preside, the meeting adjourned.

*For the New England Farmer.*

#### SOILING CATTLE.

MR. EDITOR:—In a late editorial, you kindly invited young farmers to contribute to the columns of your valuable paper. We, youthful farmers, are not expected to give the results of much experience, but we may advance some ideas for the older farmers to pronounce judgment upon. It is said, by some, that every generation grows wiser. If that is really the case, farming ought to improve much faster than it has in years past. But whether it is so or not, every one will admit that the mode of farming has been improved some, and that there is room for still greater improvements. Now the question is, how can our farms be improved the most, with the least expense, and in the shortest possible time? I think the only

way to do this, is by soiling our cattle. There is hardly a farmer in this part of the State who could not, by proper management, keep more than double the stock which he now keeps. Too much land is wasted every year for pasturing. Even on this little farm of but 50 acres, where two years ago 20 acres of that were used for pasturing, and then but six cows were kept, more than twice that number are now kept. And we have a fair prospect of making it much larger within the next two years. By keeping cattle in the barn during the summer, not only will half the number of acres keep the same number of cattle, but the farm is constantly growing richer, as much more manure can be made in the summer than in winter. And the farmer can apply it to much better advantage than the cattle can. I see no reason for farmers to be discouraged. Let Mr. Pinkham say what he pleases, for I believe that farmers are yet to become the richest portion of the community instead of the poorest.

Westboro', Jan. 1, 1861.

JOB.

#### REPORT ON THE CATTLE DISEASE.

As all our readers feel greatly interested in this matter, we have copied an abstract of the report of the Commissioners on the Cattle Disease, which was submitted to the Legislature on Thursday, Jan. 10. The people of our Commonwealth, especially, have reason for thankfulness that under the vigorous and prompt action of the authorities, a disease that threatened to spread throughout the country and destroy millions of dollars worth of the most important portion of our farm stock, has been, so far as we can now see, subdued and exterminated, and that at an expense comparatively trifling, when we consider the importance of the interest at stake.

The contagious character of the disease is satisfactorily established, and the connection of every case with the original infection clearly traced. The recommendation of the Commissioners that Congress be requested to consider the propriety of a quarantine law in relation to the admission of foreign cattle is, therefore, highly pertinent and important. We hope the report may be published in full and generally distributed among our citizens, as it is one of great interest to the community. The following is as full an abstract as we can find room for:—

The Commissioners give a lengthy and detailed history of the progress of the disease and the legislation in relation to it, and then proceed to say that they do not deem it within their province to speak at length of the pathology of the disease, with which they have been called to contend. The appointment of a medical Board of Examiners render such a service quite unnecessary.

“Certain clear and practical conclusions,” say the Commissioners, “to which we have arrived in view of the facts under our observation, we feel it incumbent upon us explicitly to state:

1. That the disease is strictly contagious, no case having occurred where it was not directly and indisputably traceable to contact with some animal known to be diseased.

2. That the severity or virulence of the disease is in proportion to the closeness of contact; that where the animals are confined in barns they take the disease from each other in the most aggravated form.

3. That cleanliness, ventilation and the use of disinfectants are important as means of preventing the spread of the disease among a herd in which it exists, and of modifying its character.

4. As the disease always in the end produces ulceration of the lungs, it is hopelessly incurable."

In proof of the contagious character of the disease, the Commissioners present a diagram, which is intended to prove the connection of every case with the original infection.

The Commissioners, after defending the policy of destruction, as being, under the circumstances, absolutely necessary, proceed to give some statistics of their operations.

From these it appears, that of the animals pronounced sound, and killed, under the act of April 4, there were 197 cows, 193 heifers, 89 oxen, 78 steers, 164 yearlings and calves, and 42 animals not described: total 673. Animals, pronounced diseased and killed under the act of April 5, 188.

Animals killed, paid for under act of June 12, cows, 10; heifers, 7; oxen, 2; steers, 2; yearlings and calves, 5; animals not described, 5; total 31. Total of animals to be paid for, 704. Total of animals killed by the Commissioners 892; in addition to which 5 have been killed by the medical examiners.

The Commissioners are satisfied that the law of April 4, 1860, under which by far the greater part of the operations of this Board were conducted, was just and liberal in its provisions; but they observe with regret that some cases of great hardship have resulted from its execution. Such cases they commend to the consideration of the Legislature.

The Commissioners then speak at some length of false reports of the existence of pleuro-pneumonia elsewhere, and of the attention which its existence in Massachusetts has excited in other States. In this connection they quote liberally from reports and other documents, printed in various States. They aver that their opinion of the contagious character of the disease is sustained by practical and scientific men everywhere. They advise, upon the appearance of the disease, immediate separation of the sick animals from the remainder of the herd, and an isolation of all that may have been exposed to the infection. The vastness of the interest at stake may make it the part of wisdom to secure most certainly, in all cases, the rigid observance of this practice by legislative enactment, as is done in other States.

In conclusion, the Commissioners say: "In view of the well established contagiousness of Pleuro-Pneumonia, the Commissioners strongly recommend that measures be taken to call the attention of Congress to the propriety of enacting such quarantine regulations, in relation to the admission of foreign cattle, as shall effectually guard the country against the danger of another importation of this contagious and fatal disease. That there is no safety in bringing neat stock from any

part of Europe, is very obvious; and since it is not unlikely that the importation of such stock will continue, the regulations proposed seem in the highest degree important. The Commissioners trust the Legislature will take such action in the premises as the exigency demands." They then quote, in support of their opinions, from an essay on the subject from Prof. Simonds, the distinguished President of the London Veterinary College, who is regarded by them as the highest European authority.

The report is signed by Paoli Lathrop, Amasa Walker, Cyrus Knox, George B. Loring and Elbridge G. Morton.

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## LADIES' DEPARTMENT.

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### DOMESTIC RECEIPTS.

**BEEF.**—A very economical, and most savory and delicious dish can be made with two or three pounds of chuck steak, (a cheap part of beef.) which infinitely surpasses the tasteless, insipid, common eating-house stuff called "beef alamode." Cut the steak into pieces about two inches square, put them into a saucepan with a large breakfast cup of cold water; put it on the fire; as soon as it boils up, stand it on the hob to simmer for two hours until perfectly tender. While simmering, tie up, with a bit of thread or cotton, a bunch of herbs, composed of knotted majoram, winter savory, and a little thyme; take it out just before the dish is served. Of course the stew must be occasionally shaken, as all others are; remember, however, the fat must not be skimmed off; the more fat there is, the better is the stew. This dish is of Italian origin, and in that country is eaten with plain boiled macaroni and Parmesan cheese, or with salad; and with either it is a "dainty dish to set before a king." Any girl from a charity school could cook it, while an alderman of Portsoken Ward, and a three stone man, or a cripple from the workhouse, would equally enjoy it, and wish he could eat more.

**OYSTER LOAVES.**—Take some small French rolls, make a round hole in the top, and scrape out all the crumbs. Then put your oysters into a pan, with their liquor, and the crumbs that come out of the rolls; add a lump of butter, and stew them together five or six minutes; then put in a spoonful of good cream. Fill your rolls with the oysters, &c., lay the piece of crust carefully on again, and set the rolls in the oven to crisp. These loaves may be used at an entertainment.

**SCALLOPED OYSTERS.**—Wash your oysters well in their own liquor, then put some of them into scallop shells or a deep dish, strew over them a few bread crumbs, with some seasoning, such as you prefer, and spread some butter over them; then add another layer of oysters; then of bread crumbs, &c., and when the dish or shells are full enough, spread some butter over the top, and put them into an oven to brown.

**PICKLED OYSTERS.**—Boil the oysters in their own liquor until they look plump, then take them out and strain the liquor; add to it wine, vinegar and pepper to your taste, and pour it over the oysters.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR.

FRED'K HOLDBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

SUGGESTED BY "MARCH."

"If now in beaded rows, drops deck the spray,  
While Phoebus grants a momentary ray,  
Let but a cloud's broad shadow intervene,  
And stiffened into gems the drops are seen,  
And down the furrowed oak's broad southern side  
Streams of dissolving rime no longer glide.

Though night approaching, bids for rest prepare,  
Still the fall echoes through the frosty air,  
Nor stops till shades of deepest darkness comes  
Sending at length the weary laborer home."

BLOOMFIELD'S *Farmer's Boy*.



EW of our agricultural friends, perhaps, can say that their initiation into the mysteries of farm-work was altogether attractive, or their experience of rural life, and the routine of domestic duties, such as to inspire them with any very vivid

ideas of farming as a pursuit; and this may as safely be said of most of the other avocations of life. Most boys have a constitutional horror of soiled hands, and the employment of heaping up stones in the stubble fields, weeding corn and dropping potatoes, is of a nature to aggravate, rather than to flatter this superfine taste.

But where is the man—no matter what may be his position or influence in society—who does not look back upon the days spent upon the old homestead, with feelings of mingled pleasure and

regret? Has after-life, with all its brilliant realizations, furnished him with that calm and quiet fullness of delight, which, without the lassitude consequent upon satiety of the world's pleasures, he tasted in the rural shades of his rural home? And it is to that point of the heart and its affections that he turns in after years with feelings of the most fervent delight.

The physical and moral training which he received in that old homestead, prepared him for the field of active labor in which he has since been so profitably employed. While he has gone on strengthening his resources by the acquisition of new ideas, he has perpetually been reminded of the advantages he enjoyed while under the discipline of teachers whose lessons were the lessons of experience, and whose schoolroom was the field.

We think it was M. l'Abbe Raynal who remarked that America had not produced a single man of genius. From this imputation it was, at the time, difficult to escape. But the case is now different in its aspects. Our literature is rapidly expanding and purifying itself, and has already become a vital force, if not a principal motor in our national mechanism. Men of talent and men of genius have graced its annals—not the mere hot-house plants of

"Those institutions in whose halls are hung  
Armor of the invincible knights of old,"

but the noble, sun-matured, toil-hardened productions of the field—men whose childhood was familiar with the plow, the scythe and the woodman's axe, and who could leap the rainbow of the brook, and "swim and reswim streams" in companion with which the "broad Hellespont" of Leander is but as a pool produced by a summer shower. We are not, perhaps, so sensible of the advantages we possess, as we should be. With a literature ready-made to our hands, we have not to contend with obstacles such as for a long time

discouraged the aspiring genius, and impeded the progress of the masses in other lands.

France, if we except the ballads of the Troubadours and Trouveres, was entirely destitute of a stock either of literature or legends, to commence with; and the literature of England—the literature which we now enjoy—was fated to struggle up through the chaos of Anglo-Saxon, Norman, French and Monkish Latin. The young farmers of New England possess, at this day, advantages of the most inviting kind. Our literature is ample, and while its cheapness brings it within the reach of every one, the long evenings of winter afford abundant opportunity for study and improvement.

The science of agriculture may properly be regarded as a *group* of sciences, the theories and applications of which the farmer must understand, if he would be master of his profession. He should possess some knowledge of chemistry, that he may understand the constituency and treatment of soils, and the composting and use of manurial agents. He must also be something of a botanist, physiologist and physician, that he may be able to manage his animals properly, and treat them well, in health and in sickness. He should also be something of a mechanic, and be versed in the principles of motive power, as well as possess some knowledge of hydrostatics and hydraulics.

While agriculture is free from many of those corroding and sickening perplexities which obstruct the path of the lawyer, the doctor and the merchant, and does not necessarily demand more severe physical effort than the mechanic is called to exert, it does emphatically require that he who would successfully engage in it should possess as much intelligence, patience, perseverance, good sense and sound judgment, as those engaged in any other profession or pursuit. These qualities of mind are no less essential to him, than the virtues of industry, perseverance and sobriety.

He must be a *thinker*, as well as a doer. As his labor is no more irksome than those which are imposed upon men in other pursuits, he has pleasures, bestowed upon him by the nature of his duties, which are not to be found in other avocations. He enjoys greater freedom, and more relaxation of body and mind, than the denizen of the crowded and dusty mart, who, confined to sultry streets, during a great portion of his existence, and excluded from a communion with nature and her sweet influences, is dependent upon the masses for support—sighing often for that repose which is denied him, and for the bland and blessed influences of the “balmy air” which he is destined seldom to inhale.

Perhaps no man ever wrote more feelingly, and

at the same time, more truly, of rural life, and its enjoyments, than the poet BURNS. Bred himself to the pursuit of agriculture, and familiar with all its details—the most minute as well as the most complex—he touched the lyre of song with a master's hand, and a soul inspired by the purest love. Let those who would beget and cherish in their breasts a passion for rural pursuits, study the pages of ROBERT BURNS; they will there find pictures valuable for their truthfulness, as well as for the exquisite taste and beauty exhibited in their finish.

*For the New England Farmer.*

#### HOW CAN WE BEST SECURE THE DURABILITY OF FENCE POSTS?

Purposing to set some posts for fence, bars or gates, my thoughts naturally revert to past experience, and the views of others I have met with at various times, as to the most proper method of preparing posts in order to secure the greatest durability of material used.

When in my teens, I got out for my father five sets of bar posts from green yellow oak logs. Each log was sufficiently large to split into two posts, and long enough to change ends when the end first in the ground rotted off. These posts were made during the winter, and, (save one,) set the following spring, consequently not much seasoned. I took especial care to keep each set together, by marking them, as all were from the butts of trees, and I wished to test them in various ways.

The first set, I put but end in the ground, charring one, the other not. The second set, but end in the ground; in one, I bored an inch and a half hole just above the surface of the ground, and filled with salt, plugging up the hole. The third set, one post but end in the ground, the other, the small end. The fourth set, small ends in the ground, one salted, the other not. The fifth, I used but one of the oak posts, putting in a pine slab for the other, to test their comparative durability. The oak was salted, and but put in the ground.

*Result.*—The first two posts both rotted off, the third year after they were set. The small ends were then set in the ground, and lasted seven years. The second, the salted post, gave out the second year, the other the fourth; the ends were then reversed, and lasted about eight years each, after being reset. The third set, the but rotted off the third season, the other the fourth; the ends were then reversed, and the but end of the last one gave out previous to the small end of the other, although the other had been in the ground a year the longest. The fourth, both rotted off the fourth season, and the butts lasted the same length of time. The fifth stood five years, and were removed, and I lost the run of them.

*Inferences.*—It did no good to char the post; it lasted no longer than his mate. It is an injury to salt green posts; the one not salted lasted two seasons the longest. The small end of a post will last longer than the butt.

When seasoned, posts last longer than when set green. In the fourth experiment, we see the



small end was set green, and lasted but four seasons, while some of the others that had been seasoned, lasted seven and eight years. Although the butts of the fourth set had been seasoned, yet we see they lasted but four years, or about one-half as long as the small ends of some of the others.

These results, I am aware, are contrary to the opinion of many writers, and the practice of many farmers. But there they are, and if of any value to the readers of the *Farmer*, they are welcome to them. Mr. Todd, the author of the "Young Farmer's Manual," contends there is no ground for the opinion that a post will last longer when placed in a reversed position from that in which it grew. (See his article in *Country Gentleman* for 1858, page 323.)

He recommends a mixture of equal parts of coal, tar and pitch, applied hot, to posts, as being far more effectual in rendering them durable than any kyanizing that has yet come to light. However this may be, it will not be amiss for those who set posts to give his recommendation a fair trial. I am in want of information on this subject. Will some of the readers of the *Farmer* let us have facts bearing on this point.

Rochester, Jan. 16, 1861.

R. O.

REMARKS.—These are such facts as farmers need. Brethren, let your light shine.

#### THE KINDLING WOOD BUSINESS.

It may, to some, seem like a small matter to hunt up the statistics of the amount of kindling wood required by the community, but the business of supplying the kindlings for a city like New York or Boston is of no small importance. We have not at hand the means of ascertaining its extent in this city, but from observation know it to be large. The New York *Commercial Advertiser*, which, for some time past, has been publishing highly interesting statistics of the various trades and kinds of business in that city, gives the following account of the traffic in kindling wood:

It is about five years since this trade became a distinct business, and the peripatetic vender of fat pine found himself and basket laid upon the shelf by the energetic wood-cartman. The trade has now assumed an importance commensurate with the growth of the city; employing the energies of fifteen large establishments, and an extensive moneyed and real estate capital. The Nestor of the trade is Daniel Nash, whose firm, the Accomac Wood and Kindling Company, employ a capital of nearly a hundred thousand dollars. Their building occupies the block on Eleventh Avenue, Twenty-seventh and Twenty-eighth Streets, where their wood is stored and prepared for use. They draw their supplies entirely from their estate of ten thousand acres of timbered lands in Accomac County, Va., employing their own vessels, and a force of about two hundred men in cutting, transporting, and distributing the wood to their customers. The other firms get their supplies from wood dealers. Two hundred thousand cords of wood are annually brought to

the New York market, of which fifty thousand cords are used by kindling wood companies. In the transportation of this material about a hundred schooners are employed. The number has fallen off somewhat lately through a contraction of the business. Of the immense supply of pine wood, New Jersey furnishes one-eighth, and Virginia the remainder. The supplies from the latter State are drawn principally from the timber lands along the James, York and Rappahannock rivers, and from Accomac County, on the peninsula which lies between the Chesapeake Bay and the Atlantic. Mr. James Allen, who is one of the largest real estate owners on the James River, has a railroad fifteen miles long on his own land, for the transportation of timber. From his docks the kindling wood dealers obtain a large part of their Virginia pine. The supply of kindling material is rapidly falling off at the accustomed sources, and new tracts will soon have to be opened, probably on the rivers of North and South Carolina and Georgia. New Jersey furnishes a far less amount each succeeding year, and the supply from Virginia is not in keeping with the demand; although the Virginia pine has a very rapid growth, shooting up from the brush to a size large enough for firewood in ten years.

The pine for kindling is brought to the establishments in this city in the form of cord wood, being afterward divided into proper lengths by circular saws, and split by a cross-formed ax, acting by machinery. It is then bundled by hand, boys being generally employed in this work, usually at wages that yield them a fair compensation for their labor. Finally, the great life of our city is put in motion every morning by these little bundles of pine wood that the kindling-man brings to our doors; and New York without her wood would be in almost as bad a condition as New York without her water.

In this city, a very common way of selling the pitch pine kindlings is by the barrel, the retail price of which quantity is about 62 cents.

AIR IN A CROWDED ROOM.—The condensed air of a crowded room gives a deposit, which, if allowed to remain a few days, forms a solid, thick, glutinous mass, having a strong odor of animal matter. If examined by a microscope, it is seen to undergo a remarkable change. First of all, it is converted into a vegetable growth, and this is followed by the production of multitudes of animalcules; a decisive proof that it must contain organic matter, otherwise it could not nourish organic beings.—*Scientific American*.

WORCESTER NORTH TRANSACTIONS.—Address by Dr. GEORGE B. LORING, upon the *actual business of farming*—crops, cattle, manures, drainage, soils, &c., and a good one it is. Among the reports there is one on *fruits and flowers*, and one on *gardens*.

THANKS.—Thanks to our young lady correspondent, "L. H. J.," from the Granite State. Do not be discouraged if you do not see all your articles in print. Good writing comes by practice, as well as good dancing, or any thing else.

## A NEW AUDIENCE.

*Lunatic Asylum, Worcester, Jan., 1861.*

GENTLEMEN:—I came here last evening, at the request of Dr. M. BEMIS, Superintendent of this Institution, to speak, as he requested, "upon some of the more pleasing topics of agriculture," to the inmates of the establishment. In company with the doctor, in the early part of the evening, I went through most of the Wards, and saw the inmates in all their different degrees of hallucination; and out of some *three hundred and seventy*, there were only half-a-dozen who showed a decided aberration of mind. These, like some of us who think we are sane, were a little inclined to that infirmity called *cacoethes loquendi*, or rage for speaking, and were very gracefully gesticulating and addressing imaginary audiences, and evidently with great satisfaction to themselves. They were all clad in plain, neat clothing, while the long halls up and down which they were leisurely walking, were scrupulously neat, so that the floor and walls actually glistened in the gas light. The bed-rooms were equally sweet and clean. Each of these halls has a recess large enough to afford room for one or two windows, a sofa on each side, a piano near the front, and a table covered with books and papers in the centre. In each Ward I found patients exercising by walking, while others were reclining upon a lounge, or here and there a group of three or four engaged in social chat, or occupied with some interesting game. At the end of one hall, a young man was discoursing "Fisher's Hornpipe" on a violin, and did no discredit to the Art. In the women's wards, groups were sewing, knitting, conversing, or indulging some one of the number who had a fancy to be dressed in all the finery the department could afford. Indeed, there were no signs of discontent, and few of restraint.—Most of the patients appeared cheerful and healthy, and every where met the doctor with a pleasant smile, which seemed to say,—"You are our tried and considerate friend." There was a wonderful influence every where, unseen, but not unfelt. All things were done in a firm, but moderate and quiet manner, and I soon found that I was surrounded by a *system* that pervaded every thing, but never chafed, unless violated. Instinctively the voice of the visitor falls to that of his attendant, and he soon yields to the quiet influences of the place.

When there, a few years ago, I saw cells with grated windows and iron doors, and within their walls denuded and desperate men in terrible delirium.

"Where are those cells now, doctor?" I inquired.

"They occupied the place of the billiard room which we have just left," was the reply.

"Probably replaced in some more retired part of the buildings," I suggested.

"No," said the doctor, "never replaced—there is no need of them."

"But what do you do with those persons brought here in a paroxysm of frenzy?"

"My Supervisor takes the key to the patient's irons, dismisses the officers who brought him, and removes his bonds; moves quietly about him; speaks in low, gentle and loving terms; walks with him, looks from the windows, sits down, and wins him over to himself in spite of his malady! There is rarely a case so obstinate, that our system does not overcome it in twenty-four hours, so that violence and danger are not anticipated."

Wonderful power! There is nothing in nature, thought I, so noble and so mighty as a loving heart. When I last looked into one of those cells, a man sprang at the door, and with the strength of a giant and the ferocity of a tiger, shook the iron frame-work until it seemed about to yield to his power, and with awful imprecations smote the stone walls or empty air with his already excoriated fists. Another was prone upon the floor, having divested himself of every particle of clothing in a recent paroxysm. The cold was intense, yet neither seemed to heed it. I was nearly horror-stricken when I learned last evening that the person who was so ferocious was from my native town, and for many years my acquaintance, an excellent gentleman and scholar. How wise is the Providence that hides the dark future which lies before many of us! Who would withdraw the veil and look into that future, if he could?

No one thing more distinctly marks the progress of the age than the treatment of this unfortunate class of our population. These improvements have been wrought out by men of learning and benevolence; not by one person, in a day or a year, but by an aggregation of study and observation, mingled with large experience in many institutions like this. And what a noble monument to the State of Massachusetts does such a spectacle as this present, contrasted with a custom which some of us can remember, of chaining such persons in the kitchen, or enclosing them in a cage like a wild beast!

But my *new audience* is ready—let us join it. On entering, I found some three hundred persons seated in a chapel whose ceiling was the roof, and the cross-timbers and other parts were hung with festoons and wreaths of evergreens. The inside finish, I think, was chestnut, varnished, and combined with the just and beautiful architectural style, gave the whole the appearance of fairy land. My audience was as respectful and attentive as those of our best towns, and during the hour and a quarter in which I addressed them, were *wide*

awake, and apparently interested in the topics presented. I had no written lecture, but spoke to them,

1. Upon some of the modes by which men seek happiness.

2. The advantages and healthful influences of out-door avocations, briefly contrasting mechanical and agricultural employments. And,

3. The soothing and delightful impressions realized in the care and cultivation of a garden: the contemplation of growing flowers and plants: the observation of animated life which usually surrounds them, and the contrast between young persons brought up in attractive rural homes, surrounded by trees, shrubbery, flowers, and pleasant landscapes, and those deprived of these sweet influences. I endeavored to show the effect of these upon the *Manners, Taste and Memory*, helping out my own deficiencies here and there by a quotation from Milton, Pope, Burns, or any one else whom I could summon, who had loved a garden.

In an easy chair, and before a bright wood fire in the family parlor, after the lecture, I discovered why the Doctor's thoughts should turn to myself to speak to his patients—he is not only a disciple of Ceres and Pomona, but has a critic's eye for the good points of a cow, or an ox, and kindles with emotion when speaking of the horse. So I had found a kindred spirit, and the evening waned into night before "half the tale was o'er."

This morning, I have taken a brief run through the barns, and have satisfied myself that the administration of the affairs of the farm is as judicious as is that of the family. Twenty finer cows, nearly all pure Short-horns, I have never seen together in Massachusetts. The oxen, horses and swine all bore evidence of skill in selection, or rearing. The farm contains about one hundred and ten acres, and its products harvested last year amounted to *six thousand dollars*, at fair market prices!

My visit has been one of great interest, and increases my desire to see the stock, farm and buildings more minutely during a growing season.

Very truly yours, SIMON BROWN.

Messrs. NOURSE, EATON & TOLMAN.

**CATTLE RUNNING AT LARGE.**—The President of the Ohio State Board of Agriculture, in reply to the argument that the "road is the poor man's pasture," says:

My attention and that of others has been directed to ascertaining the actual ownership of the cattle found running in the highways, and the result has been the conviction that less than five per cent. of the cattle found at large are owned by poor and landless persons. In almost every instance, in the rural districts over which my ac-

quaintance extends, the cattle found on the road are the property of neighboring landholders, and in country villages, merchants, lawyers, doctors, tavern-keepers, master-mechanics, and other persons in comfortable circumstances, are pasturing the roads, and commons; while the really needy families, for whom our sympathies ought to be enlisted, are buying milk by the pint.

For the *New England Farmer*.

WHICH TO PLANT, LARGE OR SMALL CORN?

MR. EDITOR:—As the season will soon be at hand when farmers will begin to look up their seeds, and looking upon the corn crop as being one of the main crops for the farmer, I thought I would give you an experiment tried by me some time since. In October, 1858, I harvested a fine field of corn, consisting of 8, 10 and 12 rowed, mixed indiscriminately. All of the long eared variety measured from 10 to 12 inches, each. I put it into one large bin, where it remained until May, 1859; it was then dry and good. I then threw into piles a lot of each kind, 8, 10 and 12 rowed, and, without any selection, I took 10 ears from each pile, and weighed the same, with the following result:

|  |
|--|
| 10 ears, 8 rowed, 3 lbs., 10 oz., cobs, 10 oz. |
| 10 " 10 " 4 " 1 " 13 " Gain of corn 4 oz.      |
| 10 " 12 " 4 " 7 " 13 " " " " 10 "              |

The 8 rowed was the largest and best looking kernels. Now, supposing there are 5 good ears, on a hill, and 4840 hills, 3 feet apart, on an acre, at 50 lb. shelled corn to the bushel, there is a gain of 12 and 5-50th bushels on the 10 rowed, and 30 and 12½-50th bushels on the 12 rowed, over the 8 rowed variety.

As a general thing, we have a good corn season, but I find that many of the farmers, for fear they will not get good corn, plant a short eared 8 rowed Canada variety. I plant the longest and largest I can get, and for 10 years have never failed of getting a crop, and I believe others can do the same, provided they are up and doing, as they should be. I am of the opinion that those who do plant this short eared variety do not get two-thirds the corn I do, when I use the larger variety.

I throw out these suggestions, and trust others will make a trial the coming season, and if it is a fact that we can get 30 bushels more corn to the acre by using the 12 instead of the 8 rowed variety, although perhaps a little longer in maturing, yet it will pay.

MASSAPOAG.

North Brookfield, Jan. 8, 1861.

**MACADAMIZED ROADS**, better than any to be found in Europe, says the *Moniteur de l'Armee*, are universal in China, and are stated to have existed in that country for centuries. The Chinese roads are so constructed that water runs off them immediately, so that they are perfectly dry half an hour after the heaviest rain. Macadam, who has had the credit of inventing the system of road-making introduced by him into England, is declared by the *Moniteur de l'Armee* to have obtained the idea from a friend of his who had passed several years in China.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 10.

FLYCATCHERS.

King Bird, or Tyrant Flycatcher—Crested Flycatcher—Olive-sided Flycatcher—Phoebe, or Pewee Flycatcher—Wood Pewee—Small Pewee.

Passing over several of the sub-families of *Laniidae* unrepresented in our fauna, we arrive at the last and aberrant form of the group, the *Tyrannidae*, or Tyrant Flycatchers, embracing our New England Flycatchers; indeed, this section being much allied to *Muscicapilæ*, or the true Flycatchers of the Eastern continent. We possess six species of *Tyrannidae*, all of which are migratory, spending the winter in warmer latitudes far to the south, a few even in tropical America, coming to us in spring to pass the summer, and rear their young in our borders. They may be considered strictly insectivorous, rarely partaking of other food than living insects, and are consequently highly beneficial to the interests of the agriculturists, and are eminently worthy of protection. They are rather tyrannical in their dispositions towards other birds, and are generally quite destitute of song, yet their peculiar notes are often in perfect harmony with their surroundings, and give additional interest to our solitary woods, fields and orchards.

The KING BIRD, or TYRANT FLYCATCHER, (*Tyrannus intrepidus*, Vieill.; *Muscicapa tyrannus* of Wilson; *Lanius tyrannus* of Linnæus,) is a common and well known species in New England, and throughout the greater part of the United States, in the Southern States bearing the name of *Field Martin*. They come to us in May, from the remote tropical regions of the continent, and are said to proceed as far northward as the interior of Canada. The illustrious Wilson thus finely describes the arrival of this bird in spring, in his poetical epitome of the King Bird's history:

"Far in the south where vast Marazion flows,  
And boundless forests unknown wilds enclose;  
Vine-tangled shores, and suffocating woods,  
Parched up with heat or drowned with pouring floods;  
Where each extreme alternately prevails,  
And Nature sends their ravages bewails;  
Lo! high in air, above those trackless wastes  
With spring's return the King Bird hither hastes;  
Coasts the famed Gulf, and, from his height, explores  
Its thousand streams, its long indented shores,  
Its plains immense, wide opening on the day,  
Its lakes and isles, where feathered millions play.  
All tempt not him; till, gazing from on high,  
COLUMBIA'S regions wide before him lie;  
There end his wanderings and his wish to roam,  
Here lie his native woods, his fields, his home—  
Down, circling, he descends, from azure heights,  
And on a full-blown sassafras alights.  
Fatigued and silent, for a while he views  
His old frequented haunts, and shades recess;  
Sees brothers, comrades, every hour arrive—  
Hears, humming round, the tenants of the hive:  
Love fires his breast; he woos, and soon is blest;  
And in the blooming orchard builds his nest."

\* Of Mexico.

Audubon remarks the arrival of the King Bird in Louisiana about the middle of March; Wilson speaks of his arrival in Pennsylvania about the 20th of April; while in New England he is seldom seen before the middle of May, generally appearing at the time the orchards are opening their fragrant blossoms. For a few days he appears fatigued, silent and melancholy, but soon his harsh, tremulous notes are heard, as he pursues on quickening wing the passing insects, or hovers over his natal haunts. In a few days he

selects his mate, and the happy pair at once commence constructing a nest in an apple tree of the orchard, or in some isolated tree of the field or pasture, rarely in hedges or along the borders of woods. The peculiar habits and remarkable traits of character exhibited by this noble bird are well known to all dwellers in the country; and the observing farmer well knows that he can secure no better protection against the Crows for his young corn, than to have a pair of these birds take up their residence in the vicinity of his cornfield. Full of affection for his mate and young, as soon as the period of incubation commences, he gallantly drives off every feathered intruder, evincing the greatest bravery in his attacks upon the Eagle, and all the large birds of prey; the Crow seeks to shun his attack, and the plundering Blue Jay he drives disgraced and screaming from the orchard. By this bird, the poultry are in no small measure protected from the attacks of Hawks; but the chief benefits derived from this bird, are from its ceaseless havoc among the destroying insect tribes, which constitute its almost sole diet till towards autumn, when it is varied occasionally with a few wild fruits. But the noble King Bird is sometimes guilty of snatching up a hapless bee, with which to vary his fare, and barbarous, inconsiderate humanity at once dooms him to be shot! his good deeds are nothing. Every American naturalist worthy the name has eloquently plead in his behalf, yet for his trivial trespass many avaricious bee-keepers, overlooking the general good, persist in his destruction.

The King Bird often rears two broods of young in a season, but generally retires southward early in September. His habits are so well known, and his residence so general in New England that further remarks are perhaps unnecessary.

The King Bird is eight inches in length, and fourteen inches in alar extent. Color above, dusky ash, the head and tail quite black, and the latter tipped with white; beneath white, approaching ash on the breast. On the crown of the head is a spot of deep scarlet, which is seldom observed, unless the exterior, dusky feathers are parted with the hand.

The GREAT-CRESTED FLYCATCHER, (*Tyrannus crinitus*, Swain,) is so rare a bird in New England that but few, if any, other than the practical ornithologists, are aware of its existence. Nuttall described it as extremely rare in all parts of New England, but speaks of once meeting with a pair of these birds in Acton, in this State, in the month of July, that had reared a brood of young in that vicinity. A single individual of this species was observed by the writer, in September of the present year, in this vicinity. Farther south it is more commonly observed. Its habits are described as similar to those of the bird above described, though rather more confined to the woods, yet making frequent excursions to the orchard, and it is exceedingly dexterous at its profession, seizing insects on the wing. It builds its nest in the deserted hole of a Blue Bird or Woodpecker, according to Wilson, of loose hay, feathers, hair, and the cast skins of snakes; the eggs are four in number, dull cream-colored, thickly pencilled with purple lines.

This species is eight and one-half inches in length, and thirteen in alar extent. Upper parts,

dull greenish-olive, the feathers of the head pointed, and centred with black, erectable, forming a loose, spreading crest; throat and breast, fine ash, abdomen, yellow; wings and tail, ferruginous.

The OLIVE-SIDED FLYCATCHER, (*Tyrannus borealis*, Swain.; *Muscicapa Cooperi*, Nutt.) is likewise exceedingly rare in New England.

It seems to have been first described by Dr. Richardson and Mr. Swainson, in their *Northern Zoology*, from a specimen obtained far to the north, on the banks of the Saskatchewan river. Nuttall subsequently met with several individuals of this species, in this State, and supposing it undescribed, dedicated it to his friend, William Cooper, Esq., and has added something to our knowledge of its habits. He speaks of them as quarrelsome and tyrannical, even among themselves, apparently disputing about the rights of their respective hunting-grounds.

The length of this species is six and a half to seven inches. Upper parts dusky brown, darkest on the head, which has an erectile, blowsy crest; sides, olive-gray; centre of abdomen, yellowish-white.

The PHŒBE, or PEWIT FLYCATCHER, (*Tyrannula fusca*, Jard.,) is one of our earliest and most welcome spring visitants, and from its familiar habits and valuable services, is well entitled to our protection and regard; yet a few, far more avaricious than humane, persist in shooting it for its habit of occasionally varying its insect fare with a few bees. He often builds in the immediate vicinity of the farm-house, in an old barn or open shed, sometimes taking possession of the deserted Swallow's nests; and his agreeable, plaintive call of *phœbe*, or *pée-wee*, *pewittée péc-wee*, heard throughout the long mornings of early spring, from his perch in the garden, or immediate vicinity of the farm-yard, are familiar to all, and ever listened to with pleasure. He also sometimes selects some sheltered, projecting part of a bridge, the walls of a well, or a cave, for the site of his nest, which is large and firm, composed of mud and moss, and nicely lined with horse hair, and soft substances. The eggs are five, and nearly pure white. Wilson speaks of a forest cave, romantically situated beside a small stream, over which, and

"Through every chink the woodbines creep  
And smooth-barked beeches spread their arms around,"

in the solitude and repose of which a pair of Phœbes quietly reared their young for several successive years, until a party of boys, waging indiscriminate slaughter upon the feathered tribes, "within my hearing," says Wilson, "destroyed both parents of this old and peaceful settlement;" and no Pewees, he observes, were seen at that place for several years after.

The Pewees, or Phœbes, remain with us until October, when the rigors of the season, and the scarcity of their insect food, compel them to seek a more southern latitude, for a more congenial climate.

This species is six and a half inches in length; extent of wings, nine and a half, upper plumage, dark, dusky olive, darker on the head, wings and tail; beneath, pale yellowish.

This species, and the two following, have been separated from the larger Tyrants, chiefly from their smaller size, forming the sub-genus *Tyran-*

*nula* of Swainson. This, and several of the smaller *Tyrannulae*, Jardine observes, are much allied to the spotted Flycatcher of Britain, (*Muscicapa luctuosa*, Tenn.,) differing in no point but slightly.

The WOOD PEWEE, (*Tyrannula virens*, Jard.,) is a common sylvan species, occasionally seen in the orchard, but generally wholly confined to the woods, and more commonly observed in high-timbered, solitary woodlands, where there is but little undergrowth. Perched on the slender, dry twigs of the lower branches, it incessantly watches for passing insects, darting upon them with unerring aim, in the intervals calling out *pee-way*, *pee-a-wee*, *peto way*, in a feeble, melancholy tone, well harmonizing with the solemnity of the shady woods, outside of which it is so seldom seen, though in August it sometimes approaches the thick-set orchards. It is wholly inoffensive, subsisting like its congeners on winged insects. It constructs a neat, and very curious nest, so interwoven with moss on its exterior surface as hardly to be distinguishable from the decayed, moss-covered branch upon which it rests, and is delicately lined with fine root fibres, and other soft materials. The eggs are three or four, yellowish-white, sparingly blotched with lilac and dark brown. The Wood Pewee winters far to the south, seldom arriving in New England before the middle of May, and retiring early in September.

The Wood Pewee measures six inches in length, and ten in alar extent. Above, pale brownish-olive, beneath, pale yellowish; head, sub-crested, brownish-black.

The SMALL PEWEE, (*Tyrannula Acadica*, Swain.,) is a common, and well known species, inhabiting alike the orchard and the forest. It comes to us from the far south, about the tenth or fifteenth of May, with the throng of summer birds that then arrive; and their sharp, rather unpleasant call of *queah*, *tsheah*, is at once recognized, so frequently uttered while watching for insects in the vicinity of the garden or orchard, or while engaged in petty combats with one another, which are common at this period. Farther south it seems to be quite rare, from Wilson's account of it, and chiefly confined to moist woods and solitary forests, but it is common, even quite numerous in this latitude, and extends its migrations far to the northward, and is, perhaps, more frequently seen in the orchard than elsewhere. It constructs a neat and curious nest, generally in the forked branch of an apple tree, compactly woven of the strong fibres of dead grass, thread, if it can possibly obtain it, and horse hair, nicely lined with soft, downy substances. The eggs are white, and four or five in number. This is one of the smallest of our Flycatchers, but gallantly defends its nest from all intruders, equaling its larger congeners in intrepidity, and in the skill it displays in seizing its favorite food.

The Little Pewee is five and a half inches in length, and nine in alar extent; upper parts, green olive color; beneath, greenish-yellow, darkest on the breast; wings dull brown, with two bars of dull white.

J. A. A.

Springfield, Mass., Dec. 30, 1860.

HOW TO RIGHT A LEANING CHIMNEY.—A correspondent who had built the foundation of his

chimney with the wall of his cellar, and continued it 20 feet high, found that after a few months it began to settle on one side, causing the chimney to lean out from the house at the top, (it being an outside chimney,) until it was eight or nine inches out of line. He righted it by taking out the grate and sawing through the jams (mortar joints,) on three sides (including the most elevated) at three different places between the arch and the hearth, which process straightened the chimney without rebuilding. Those having large leaning chimneys should make a note of this.

*For the New England Farmer.*

#### CULTURE AND VALUE OF KOHL-RABI.

The 20th volume of the *Journal of the Royal Agricultural Society of England* contains a paper on the Kohl-Rabi, by PETER LAWSON & SON, Edinburgh, a general summary of which brings under one view the special features of the Kohl-Rabi, and the various points to be noticed in the cultivation, general management, properties and uses of the plant.

1. There are eleven varieties in cultivation, four of which are supposed to be modifications of the others.

2. All soils are suited to its cultivation, but it prefers heavy lands, even those approaching to stiff clays, and it can be grown where turnips cannot.

3. Soil should be in fine tilth, well worked, and farm-yard manure plowed in, in the autumn. In the spring it should be grubbed and thoroughly pulverized.

4. It requires heavy manuring; phosphatic manures, with common salt added, are most suitable for it. Peruvian guano and other nitrogenous manures should be avoided.

5. Seed should be sown in beds at the end of February or early in March, in drills, 12 inches apart. A bed 6 yards square will afford sufficient plants for one acre of land, and 8 ounces of seed will be necessary for the seed-bed.

6. For successional crops, three sowings may be made; the first early in March; the second, during the second week of April; and the third, the first of June.

7. Transplanting to the drills should be commenced the first week of May; but, as a general rule, the plants should not be removed until they are from 6 to 8 inches high.

8. Plants for the main crop should be dibbled in at 18 inches distance. If successional crops are transplanted, the first (in May) should be 18 inches; the second (in June) 16 inches; and the third (end of July, or the first week in August) 14 inches apart.

9. If sowed at once in the field in the drills, the operation should be performed about the middle of April, but not later than the end. Of seed, 4 lbs. are necessary for an acre.

10. Drills should be 27 inches in width, and plants should be singled to 18 inches.

11. While growing, the horse-hoe must be kept in continual requisition, until the spreading of the leaves prevents the operation being performed.

12. The average weight per acre is in England from 26 to 30 tons; in Scotland, from 20 to 25 tons; and in Ireland from 30 to 35 tons.

13. Every description of stock will eat the Kohl-rabi with avidity. In consuming the crop, sheep may be folded on the ground; but, if given in the yards to cattle, the bulbs should be sliced or pulped. For pigs they should be steamed or boiled.

14. For cattle and horses it affords true nourishment when boiled with grain.

15. For milch cows it is invaluable, giving to milk or butter none of that disagreeable flavor which results when they are fed on turnips.

16. For ewes and lambs it is as fine food as they can have in March and April; and when ewes are lambing, it is found greatly to increase the supply of milk.

17. Kohl-Rabi is, so far as present known; subject to no disease except "clubbing and an-bury."

18. If hares and rabbits exist in the neighborhood of the crop, they are sure to prove very destructive, unless means of precaution are taken.

19. The leaves are of equal value with the bulbs in nutritive properties.

20. The plant for feeding purposes is twice as valuable as ordinary turnips.

21. It bears transplanting better than any other crop, and is invaluable, therefore, for filling up blanks in turnips, or potatoes.

22. The Kohl-rabi can withstand any amount of drought, if the transplanting has been successful.

23. The most intense frost does not affect it; it stands the winter well, and affords good feed even to the end of spring.

24. Its advantages over the swedes are, that cattle, and especially horses, are fonder of it; the leaves are better food; it bears transplanting better than any other root; insects do not injure it; drought does not prevent its growth; it stores quite as well or better; it stands the winter better; and it affords food later in the season, even in June.

JOSEPH COE.

*Rochester, Jan., 1861.*

**A BAD BEGINNING.**—A farmer who wintered eighty sheep last winter with the loss of only two, which he says were old enough to die any how; who raised without trouble 44 lambs from 47 ewes, and whose fleeces averaged over three and a half pounds, gives in the *Ohio Cultivator* the following lively description of his experience in keeping sheep the previous season, without the comfortable shelter which his flock now enjoys.

In the fall of 1858, I started into the winter with about 80 fine sheep without any shelter. But O! how I came out! Against spring opened up, I had 66. But that was not all. I had gone to the expense and trouble of getting two very nice bucks; and from about 50 ewes I raised about half as many lambs, by raising four or five by hand. Was this all? No! When I sheared them, I put what wool I had got off my dead sheep in among my other wool, and then my 66 fleeces did not average three pounds.

**HOPS.**—From one thousand hills of hops planted last February, in California, one thousand pounds of hops were gathered this fall.

## BUCKTHORN FOR HEDGES.

The inquiry is occasionally made, "What is the best plant for hedges, taking into account hardiness, rapidity of growth and beauty?" Several plants, such as hemlock, arbor vita, three thorned acacia, osage orange, native crab apple, and others are employed.

If the hedge is designed to fence against cattle, some of the hedges with sharp stiff thorns are best, but if to be used as boundaries or objects of beauty, we know of nothing that will "set off" the premises and answer the purpose desired so readily as buckthorn. The cut, which we give above, shows how the plant will spread, and form a low tree when standing alone. When properly



cultivated and pruned, it serves an excellent purpose as a shelter for the garden, breaking the high winds, somewhat modifying the fierce solar heat in summer, and at the same time tending to keep the grounds moist in dry seasons.

"The Buckthorn is indigenous to our country, is a bushy plant, growing from ten to fifteen feet high, not very thorny, but having sharp, stiff spurs, or side branches, and is considerably used as a hedge plant in this State. It bears clipping remarkably well, does not suffer from extreme cold, puts on its greenness early in the spring, and is possessed of great vitality, so that it seldom suffers from transplanting." A quite full account of the different plants used for hedges may be found in *WARDERS' Hedges and Evergreens*, published in 1858.

GARGET.—A correspondent of the *Rural New-Yorker*, who "was brought up from childhood on a farm, has kept a dairy for a living, and is getting somewhat along in years," thinks that Nature is

a sufficient physician for this disease, which he says is caused by accident. When he discovers that the milk is bloody he draws it carefully, but does not save it from the section of the udder affected until the milk again presents a healthy appearance, which generally has been but a few milkings.

*For the New England Farmer.*

## RETROSPECTIVE NOTES.

THOUGHTS SUGGESTED BY N. E. FARMER, JAN., 1861.

*Feeding Hogs—A Common Mismanagement, and a better Way.*—In the brief article on this subject on page 10 of *N. E. Farmer*, (Monthly,) and in the weekly of Dec. 15, there is an opinion advanced which we think to some extent erroneous, and likely, also, to mislead or perplex those who cannot separate the truth it contains from the error with which it is mixed up. The statement is this,—that the usual process of feeding pumpkins, potatoes and other bulky substances to hogs for several weeks before feeding them on corn is injurious, because this bulky kind of food tends to enlarge the stomach and digestive organs, and thus the hogs are led by the mere force of habit to eat a larger amount of the more nutritious food than the system requires, more than can be digested, and more than they would otherwise do. Now there is here a mixture of truth and error, and it is of much practical importance to discriminate between them. Those who fail to separate the former from the latter will be either perplexed or misled by the foregoing statement; while those who make the proper discrimination may have an important fact or truth more deeply fixed in their minds, and more likely to be remembered and ready for application in their hog-feeding processes.

This much, then, is true about the foregoing statement, viz., that bulky, or I should rather term it highly diluted, food is quite apt to produce the morbid enlargement of the stomach and digestive organs which is therein alleged. But it is not absolutely necessary and unavoidable that boiled pumpkins and potatoes must be so bulky as to be liable to this objection. It is the addition of too much water or slop or thin milk which makes even this kind of food injurious. In order to get enough of real nutriment to satisfy the craving of hunger, hogs fed on highly-diluted food—whether the food so over-diluted be boiled pumpkins and potatoes, or boiled meal, or raw meal, or bran, or anything else—are obliged to swallow a much larger *quantity* than they would need to do, or would do, if the *quality* were richer, more nutritious, or less diluted. This over-thinning of swill or food for hogs is not confined to the single case of potatoes and pumpkins, but may be met with, by the help of an observing pair of eyes, in the swill and the swill-barrels of a great many who do not understand very well the business of hog-fattening and pork-making, simple and easy as that business may seem.

But, notwithstanding that we believe there are a good many who do not understand this apparently simple and easy task, and notwithstand-

ing that there are a great many blunders committed in the feeding and management of hogs, we are pretty sure that the writer of the article under notice is laboring under a mistake if he supposes, as he seems to do by his use of the phrase "usual process," that the majority or generality of farmers feed boiled potatoes and pumpkins alone, without any admixture of meal, bran or some other more nutritious ingredient, even at this season of the year, when potatoes and pumpkins do most abound. We should say, from our own observations, that these articles are not very frequently—far from "usually"—fed alone, and that an addition of bran or meal was the more usual process. But even if these watery vegetables were fed alone, without any addition of meal or other less watery and more nutritious elements, there would not be much danger of enlarged stomachs and pot-bellies, if the water in which they were boiled were pretty thoroughly drained off and the potatoes and pumpkins served to the hogs nearly dry or undiluted.

Our readers will have discovered by this time what we consider the error of the article under notice. It is attributing to a certain convenient and common kind of food—specially convenient at potato and pumpkin harvest—injurious effects, which are produced much more commonly from mere bulkiness or over-dilution of all kinds of food, than from any special quality of any particular kind.

The over-dilution of hog-feed, to which we have been endeavoring to direct the attention and the thoughts of our readers, is, we are persuaded, a frequent and a pernicious mode of mismanagement. The evil consequences already referred to in the commencement of these remarks are not the only ones which flow from this not uncommon blunder. There can be no doubt, with those at least who have been witnesses of the thin slops which some of their neighbors, perhaps, carry out to their hogs, that one reason why some hogs do not thrive, is, that they get too little nutriment, that whole pailsful of thin slop have to be swallowed in order to get as much nourishment as might be put into a quart or pint bowl. The consequence, in a few cases which have come under our observation, is, that these feeders of slops never have any "luck" with their hogs until they husk their corn and feed their hogs almost exclusively on that, and even then it takes them longer than some of their neighbors, who feed less liquids and more solids in the earlier part of the season, to get their hogs decently fat by Christmas or New Year's day.

The very decided success with which Mr. J. LONG, of Holyoke, practices feeding meal in the dry state to his hogs, and giving them their slops or other drink separately, may be taken into consideration along with our remarks. Mr. Long's report may be found in last year's volume of this paper, on page 462 of the monthly edition. Those, we are confident, who duly consider Mr. Long's report and these remarks, and who frame their hog-feeding accordingly, will feed less liquids and more solids, and these, perhaps, separately, and will be very unlikely to have their hogs either pot-bellied or poor.

*Portable Grist Mill.*—In the *Farmer* of Dec. 15, S. W. SOUTHWORTH, of Middletown, Ct., writes that he wants to get some *reliable* informa-

tion in regard to some portable grist mill which he had seen advertised in the columns of this paper. He states that he has from three to five hundred bushels of grain to grind every year, and as he has to haul it two miles to get it ground, and frequently has to go the second time after it, which is no small job when the roads are muddy, he, naturally enough, would like to do his own grinding, but, like a sensible man, would like to know how fast these advertised mills can grind, how durable they are, what they cost, &c., before purchasing one.

As no information has as yet been given in reply to Mr. S.'s inquiries, and as there are, doubtless, several others of your readers to whom information as to the points named would be of considerable value, I will here, for the benefit and satisfaction of Mr. S. and others similarly situated, give an outline of a communication by S. EDWARDS TODD, in a recent issue of the *Country Gentleman*.

Mr. TODD states that as he lives five miles from a good grist mill, he has been trying for eighteen years to get a good farm mill with which he would be able to grind coarse grain for feed. He says he has expended a great deal of time and money in getting such mills, and in experimenting with them, and that he has thrown them all aside as non-paying, profitless machinery, preferring to haul his grain five miles to have it well ground rather than to attempt to grind it in such worthless pepper-mills, as he calls them.

The details of Mr. Todd's experiments with several of the advertised and highly-puffed grist-mills are very interesting. Those who wish to acquaint themselves therewith, will find them in full in the *Country Gentleman* of Nov. 15, 1860. They may save some of your readers from much waste of time and money. MORE ANON.

ESSEX COUNTY TRANSACTIONS.—The transactions for 1860 are before us. The first paper they contain is the address of JOHN L. RUSSELL. Then follows a report on *Flowers*, by C. M. TRACY, occupying fourteen pages—both are excellent papers. Reports upon Fruits, Vegetables, Stock, Farms, &c., follow, and are more valuable than are usually found in similar Transactions. The officers of the Society for the year 1861 are,—*President*, ALLEN W. DODGE, Hamilton; *Vice Presidents*, LEWIS ALLEN, South Danvers; JEREMIAH COLBURN, Newburyport; DAVID CHOATE, Essex; JEREMIAH SPOFFORD, Groveland; *Treasurer*, WILLIAM SUTTON, South Danvers; *Secretary*, CHARLES R. PRESTON.

REMEDY FOR GARGET IN COWS.—I had, a few days since, a new milch cow whose bag was very badly caked—so much so that the usual remedies of cold water, soap-suds, spirits camphor, &c., had no effect upon it. I asked our family physician for a prescription, who gave me this:

1 part aqua ammonia,  
2 parts sweet oil,

well rubbed in, twice daily. In two days a cure was effected.—W. J. PETEE, Salisbury, Ct.



## STATE REFORM SCHOOL.

This Institution and its interests have been brought to the public mind in an unusual degree, during the last year. This has been occasioned by two causes. First, the fire which destroyed a considerable portion of the buildings, and secondly, the bitter and uncompromising hostility of Gov. Banks, from the moment of his induction into office. That hostility was determined, and unyielding, and became so apparent to all, except the council whom he controlled, that it was the common expression of the public voice. He knew little or nothing of the affairs of the institution, because he never went there after his election, until the fire occurred. It was determined to "crush out" the Institution, and because *the Trustees carried out the designs* of its noble founder with singular fidelity, and *strictly regarded the laws of the State* in its management, they were removed from office; and now, as if to complete the wretched work which originated in weakness and imbecility, as well as hostility, one of the best men that ever lived has been removed from his place as Superintendent, because he, too, obeyed the laws of the State, through the direction of the Trustees. The whole assault upon the officers of the institution was as wicked as it was unprovoked. It is due to the credit of the State, and to the officers removed, that a thorough and searching investigation be instituted by the present legislature.

Below we give a brief account of the closing scene of the drama, which shows clearly *who* stands highest in the hearts of boys and the few remaining officers,—the late Governor and Council, or their old, long-tried and faithful teachers and friends.

The retiring Superintendent of the State Reform School at Westboro', as we learn from the *Marlboro' Journal*, was made the recipient, the other day, of an elegant family Bible, presented by the 280 boys confined there, and the officers presented him with an easy chair, and to Mrs. Starr was given a set of silver spoons. In addition to these testimonials of esteem and affection were added four large photographs of antique bas-reliefs in handsome gilt frames, the offering of the Sabbath school teachers. The presentations were a total surprise to Mr. and Mrs. Starr, but the former made a few remarks, saying that he had been taken quite by surprise, and no words of his could express the emotion which he then felt. Four years ago he had torn himself away from a connection too pleasant to last, to come here. He could confidently appeal to his conscience, and to all who knew him, to say if he had not labored with all the powers his Maker had vouchsafed to him, for the welfare of the inmates of that institution. Notwithstanding the assaults that had been made upon his character, he felt assured that he should come out of it unscathed. The 1150 boys who were, and had been, inmates of the Institution since he came there, were his friends;

and he felt his reputation was safer in their hands than with Governors and Councils, because the former were not ambitious of political promotion. To the boys he said: The associations between us have been pleasant; but we part now; no more shall we meet together here, but I shall remember you as long as life lasts. He bore willing testimony to the faithfulness of the officers and teachers of the Institution, and acknowledged many acts of kindness on their part.

Mr. and Mrs. Starr leave Westboro' with the respect and esteem of all who have enjoyed their acquaintance, and the loss will be none the less to the Institution over which he has so long presided, and which has had his best efforts for the past four years; and his friends in this city, who have so long known him, will not be prepared to believe all the charges contained in the report made by a committee of the Council, but rather refer to his whole life for their refutation.

## EXTRACTS AND REPLIES.

## HEAVES IN HORSES.

I would inquire what is the best mode of managing and feeding a horse slightly affected with the heaves, so that they shall injure him the least?

Also, how many bushels of oats, corn, rye, barley, wheat, potatoes, carrots, ruta bagas, white flat, turnips and beets are equal to one ton of hay for cattle and horses?

What is a fair crop of each to an acre of land?

Y. B. PEPPERWELL.

East Washington, N. H., Jan. 8, 1861.

REMARKS.—Feed the horse affected with the heaves on cut fodder moistened with water—give him no *dry* fodder of any kind, and feed at regular times. Drive him moderately, and protect him from sudden changes of temperature. With regard to the comparative value of roots and grains with English hay, we refer our correspondent to the monthly *Farmer*, for February, 1859, page 91. We also give the following from an article, published in the *Farmer*:

The following table, gathered from reliable sources, shows the value of potatoes, carrots and ruta bagas, the roots usually grown for stock, compared with *good hay*:

|                      |              |                  |
|----------------------|--------------|------------------|
| 200 lbs. of potatoes | are equal to | 100 lbs. of hay. |
| 250 " carrots        | " " "        | " " "            |
| 300 " ruta bagas     | " " "        | " " "            |

Again, by allowing 60 pounds to the bushel of the above roots, we have the following:

|                        |              |               |
|------------------------|--------------|---------------|
| 67 bushels of potatoes | are equal to | a ton of hay. |
| 92 " carrots           | " " "        | " " "         |
| 109 " ruta bagas       | " " "        | " " "         |

By this estimate, with the usual yield per acre, it will be seen that root culture pays; a fact of which many a farmer and stock-grower has been convinced by practical demonstration.

On good land, and under good cultivation, a fair crop of oats is 40 to 50 bushels; corn, 40; rye, 25; barley, 30; wheat, 20; potatoes, 100 to 300; carrots, 400 to 800; ruta bagas, 300 to 600; flat turnips, 300 to 700. These crops vary greatly

in consequence of the favorableness or unfavorableness of the season, the kind of soil they are upon, and the skill with which they are managed.

#### FEED FOR HORSES.

1. How many pounds of hay are required for a horse of 1000 pounds, the hay cut and mixed with two quarts of meal?

2. Can you tell me what those who send horses into the country, to get them kept through the winter, have to pay per week? What is it worth per week on good hay and two quarts of meal a day? J.

REMARKS.—1. No definite answer can be given to the question; it depends partly upon the work that a horse is doing, and partly upon the animal himself, as some horses of the same weight and performing the same amount of labor as others, require much more food. It is so with men. You can satisfy yourself with the experiment of two or three weeks by weighing the hay you feed out each day. We kept a horse well that weighed 1100 pounds upon sixteen pounds of hay per day, cut and mixed with two quarts of corn meal—half in the morning and the other half at night, and at noon four quarts of carrots. Upon this feed he worked every day, and kept in good condition.

2. There are persons in the country who make it a business to winter horses for city people, and traverse the entire city in the autumn to obtain them. The general rule in fixing a price is, when hay is worth \$10 per ton to charge \$1 per week; when \$15, charge \$1.50, and when \$20, charge \$2 per week.

#### TIME OF CUTTING TIMBER.

The seventy years' experience of Mr. Baker, of Dedham, in cutting timber, is worthy of great regard, as is everything coming from a source so venerable. But when he undertakes to trace the endurance of the timber to the position or age of the moon, at the time of its being cut, he goes beyond the record. There is no good reason whatever to believe that the moon has any influence on vegetable growth or vegetable endurance. I have often heard these things charged; but after more than fifty years' observation, I have never witnessed any connection between the two. I think it is one of those traditions that should be laid aside. I remember to have heard a man of as much wisdom as I ever knew, and eighty years' experience, say, in relation to the cutting of bushes, that the moon had no more to do with it than the "Man in the Moon." With this opinion I fully concur. ESSEX.

December 31, 1860.

#### WHITE BIRCH AND WHITE PINE SEED.

Please inform me through your paper where I can procure the white birch and white pine seed, and how much it takes to sow an acre.

A CONSTANT SUBSCRIBER.

Derry, N. H., Jan., 1861.

#### TOP-DRESSING.

1. Is guano adapted to a deep clay soil, once mowed, but upon which English grass has come in and choked out the meadow—a soil that is too heavy to plow and not easily drained? 2. Would ashes be better than guano? 3. How would lime and plaster do for such a soil? 4. Would the effects of guano be seen the coming summer if put on as soon as the snow is off? 5. What is guano per pound? J.

Frauncestown, N. H., 1861.

REMARKS.—Guano is well adapted to just such soil as you describe. Apply it during a gentle rain in April. 2. We should prefer the same money's worth of ashes. 3. Guano or ashes would be preferable to lime or plaster on such land. 4. The effects of the guano would undoubtedly be seen the first summer after its application, if it were applied immediately before, or in the midst of a rain. 5. Peruvian guano sells at about three cents per pound,—the American at a little more than two cents.

#### IS LABOR DEGRADING?

Among certain people the idea seems to prevail that labor is degrading; that is, such labor as a farmer is obliged to perform. Digging the potatoes he eats, would, in the estimation of some, degrade a man more than the forging of a note. I have at present in my mind one case of a young man of good ability and who was also once of moral excellence, who left Dartmouth with this idea, expressed in his own words—"I cannot beg, and to dig I am ashamed." Not long after he left, his funds were gone, and to replenish his purse he resorted to forgery, and the result was, that his home for two or three years was in the Massachusetts State Prison. Nor is this a solitary case, but one of many. The question that has often presented itself to my mind is this: Would not the public good be much better promoted by dispelling the idea that labor degrades, than by adding agricultural departments to the colleges now in existence, or the founding of new colleges?

Will some one give their ideas on the subject?

A YOUNG FARMER.

Hanover, N. H., Jan. 3, 1861.

#### PROFIT OF SHEEP.

There has been considerable said in your paper concerning sheep, and the great profits which are derived from them. As I am about going in for a good flock of them, there is one thing which has bid me stop and consider. How can I keep my farm up in a good state of cultivation? Are sheep as good for the farm as other stock? This should be looked at as much, and more, than the profit of a day or a year. Will you or some one answer? N. MATTHEWS.

Hemiker, N. H., Jan. 1, 1861.

REMARKS.—By reference to the columns of the *Monthly Farmer* for the year 1860, you will find this very point treated at considerable length.

There is no doubt on our mind but the fertility of the farm can be better kept up with sheep

than with any other stock. In order to do this, they must be well housed and fed, and provided with yards suited to hold and preserve their droppings. One of the best things you can do is to visit good, practical farmers, who are keeping sheep, and learn their modes of practice. It will be cheaper to spend five dollars in this way, than to lose twenty-five by experimenting on a subject with which you are not acquainted.

#### DEEP PLOWING.

Mr. Merriam, of Fitchburg, is reported to have said at the late meeting of farmers at the State House, that "he plowed his lands four feet deep for Indian corn, using a Michigan plow." This may be true—but I have no conception of it. He may have said four inches deep—but this would have been as wild the other way. I admire to read these sayings and doings of practical men, but I admire them most, when they give unmistakable indications of common sense—and not the contrary. P.

January 12, 1861.

REMARKS.—We heard Mr. MERRIAM'S remarks, and suppose he said *fourteen inches* deep, and not four feet.

#### AUSTRALIAN OATS.

I noticed in one of the last numbers of the *Farmer* an inquiry for Australian oats. Allow me to say that I have raised them for two years past with good success, yielding about one-third more to a bushel sowing than the old kind. The straw is large and not liable to lodge. They are worth here, pure and clean, 75 cents per bushel.

Cabot, Vt., 1861.

C. M. FISHER.

SPIDERS.—A learned entomologist, who has made a special study of the structure and habits of spiders, states that there is not a single authentic case on record of a person being killed, or seriously injured, by the bite of a spider; all the stories about the fatal bite of the famous tarantula being simply fables. These insects are, however, exceedingly ferocious in their fights with each other; their duels invariably ending in the death of one of the combatants. In some species, the first step of the young as soon as they are hatched is to eat up their mother.—*Scientific American*.

MUCK SWAMP—*Roxbury, Vt.*—We have examined, with some care, the specimens of muck handed us from Roxbury, Vt. They are composed of mixed substances, some of which would be of great value both as absorbents and fertilizers. If the parcels handed us are now in the form in which they were originally deposited, an examination of them will show that the strata composing the mass are made up of substances quite unlike each other. The *black* stratum is a mass of highly decomposed vegetable matter, while that of a *slate color* is very fine, with little vegetable fibre, and is a sort of mingling of calcareous

and argillaceous, or clayey and chalky earth. Upon the application of vinegar to the muck there was a slight effervescence. This clayey substance is less valuable than the former, and especially so as an absorbent, as it has little absorbing power compared with the black mass. Taken together, however, the vegetable matter so greatly prevailing, we should think the muck highly valuable on a farm made up of sandy, or sandy loam, lands.

For the *New England Farmer*.

#### THOUGHTS AND QUERIES.

MR. EDITOR:—In the last issue of the weekly *Farmer*, for the year just closed, you expressed a hope that young men would more generally contribute articles for the columns of the *Farmer*—your desire being to obtain their ideas, whether or not they be couched in language plain or more obscure; it is this frankness which wins my confidence, and impels me to attempt the untried task. The means which farmers' sons have for obtaining information of current events are usually confined to the contents of the family almanac or the local newspaper.

The contributions of such would perhaps contain *original* ideas, but might be absurd or useless ones. The limited access which I have had to the sayings and writings of the public men of the country, has made me observant of the expressions of their high regard for the independent and patriotic tillers of the soil, patronisingly terming them the "incorruptible people," "the lords of the soil," "the sovereigns in whom is vested the governing power," and so on; displaying the beauties of their vocation with such a prodigal use of the poor Saxon as to create an unbelief in its sincerity.

If, indeed, it is such an ennobling occupation as they describe it, why do they not engage their powers in its labors? Or are they even self-sacrificing and philanthropic; such disinterestedness must certainly be endurable if not commendable.

Why does one of the leading journalists of the country advise all young men who are anxious to gain wealth, or honor and fame, to remain in the country, upon the farms, rather than to seek their fortunes in the city? Had he received and obeyed such instructions, possibly we might never have been blessed with the teachings of the immutably philosophic Greeley.

No one will question the right, even if he does the propriety, of farmers' sons cherishing aspirations as high and noble as the sons of professional men. Does not the farmer receive proportionately less pecuniary reward for labor than the mechanic or the professional man? If this is so, why wonder that the farmers' sons seek less laborious, and better paying employment. Farming, no doubt, is very agreeable employment to those who can command a generous capital, requiring of them very little or no physical labor; also pleasant to those who enlarge upon its beauties, its prosperity and independence—but at the same time are ignorant of the practical difference between speaking of, and performing its various appointments. Ambition is an element of our natures, few of us being exempt from it. Some are desirous of ob-

taining wealth and power, as a means of securing happiness, while others are satisfied with distinction at the sacrifice of time and money. There is undoubtedly a proper sphere for every mind, in which it should be employed, but how shall the appropriate one be designated?

Happiness is that possession which of all others is the most desirous. Contentment is happiness and if we are not satisfied with what we are, shall we not strive to reach that goal which promises higher enjoyments?

G. F. T.

*Dover, N. H., Jan. 14, 1861.*

REMARKS.—There are exceptions to all general rules. Some boys, while quite young, show a most decided inclination for one particular pursuit, in preference to all others. Such an inclination should never be disregarded, as, in nine cases in ten, he will distinguish himself in the profession he has chosen.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER BY THOMAS BRADLEY.]

This *third meeting* was very well attended by those who have the prosperity of the farmer at heart.

The meeting was called to order by Mr. WALKER, of Brookfield, who introduced Hon. JOHN BROOKS, of Princeton, as the presiding officer of the evening. Mr. Brooks, on taking the chair, thanked the meeting, and announced that the subject for discussion was, "*What kinds of Farming are most Profitable in the different parts of the State,*" saying that, as the question embraced the whole State, he would not detain the meeting by an address, but should be happy to hear from the farmers from the different counties as to their experiences. He said there were two kinds of farming to be considered, high and low, intensive and extensive, the latter where labor was dear and land cheap, and the former where labor was cheap and land dear; there was also special farming, as garden, fruit or flower farming, in some parts. In other parts of the State a system of less intensive farming was carried on, such as dairy farming, where milk, manure, and hogs were the chief objects; but these, of course, were more numerous, and paid best where there was a contiguous market for milk and pork. There is then, said he, a wider range still in stock farming, which is, perhaps, the most profitable, while there is still another part where sheep farming undoubtedly pays the best, and he was satisfied that, with the proper attention, this last might be made even more profitable than it now is. He closed by hoping the members would not wait to be called on, but give their views on the question.

Mr. WHITE, of Petersham, said that in Worcester County the farmers had various opinions on the question, and that in the vicinity of his

town the mixed system of farming prevailed; but more attention was paid to the dairy than to any other branch. They also raised good stock which they would not hear spoken of disparagingly. In the summer they had excellent pastures, and their crops were second to none in the State, of those kinds required for dairy stock. There are few branches of farming, said he, that require more attention than successful dairy farming, and if the statements he had received from some of the farmers in his county were reliable, and he thought they were, he would say that this was among the most profitable branches of farming.

He spoke of a farmer in Barre who kept 16 cows, and said that last year these had produced 410 pounds of new milk cheese, at 10 cents per pound, per cow, and he was satisfied this would be considered as profitable as could well be desired.

Mr. PROCTOR, of Danvers, said he had seen something of the culture in Essex county, and in his neighborhood the men who cultivated from 5 to 30 acres, made as high as \$40 per acre on it by plowing thoroughly and manuring freely. All kinds of vegetables are raised there, and, until the destroyer, in the shape of disease came, the most promising crop was that of onions. Within a small circuit of his residence the speaker said he had known of 100,000 bushels being raised in one season, and had known many men who had made more than \$100 per acre, clear of expenses, in raising this crop. This, said he, is a crop which does not exhaust the soil, as with successive crops for 20 years the land will produce as high as 500 bushels to the acre. Hay is also grown of good quality, and from one to two tons to the acre, while beets and carrots were also a good paying crop. Few realize so much by general crops, as by the special crops for marketing, corn rarely producing more than 20 or 30 bushels to the acre; still, within the past year, 30 bushels of wheat per acre had been harvested in many instances, and he hoped to see this grain more cultivated than it had been heretofore.

Mr. BUSHNELL, of Sheffield, said he would speak for Southern Berkshire, where more attention had been paid to grain crops than had been usual until recently, and he believed it was profitable. For some years sheep had been the chief subject of interest, and, even now, Berkshire county has 40,000 of the 130,000 in the State; but in a great measure owing to the ravages of dogs, this branch of farming, which had heretofore been very profitable, had been given up. He hoped to see some action taken to strictly enforce the dog law,\* when he had no doubt it would again prosper. The sheep in Berkshire county were the fine woolled sheep, and they had been kept for their wool, while in the vicinity of a mar-

ket the mutton would of course be an object. Their sheep were the Spanish or Vermont Merino, not perhaps a pure Spanish Merino, but near enough to produce an excellent wool. From these they obtained from  $3\frac{1}{2}$  to 6 lbs. of washed wool per head, and in ordinary times this sold for 50 cts. per lb. It is sometimes lower in price, but by keeping it over a year it will gain more in weight than enough to pay the interest. Some farmers make money by raising lambs for market, a cross between the Merino and South Down, and a large number of these are so disposed of. The farmers in the county raised corn, oats, rye and wheat, the latter of very good quality and yield, but few raise more than enough for home consumption. He had no doubt if sheep husbandry was generally introduced, it would be found the most profitable branch of farming in the State.

Mr. BROWN, editor of the *N. E. Farmer*, asked the gentleman whether sheep husbandry had, or had not, a tendency to exhaust farms more than the raising of any other stock?

Mr. BUSHNELL said he had been engaged for 30 years in sheep husbandry, and he knew that he had raised the value of his farm 50 per cent., by stocking with sheep. Where land can be plowed, sheep will improve it very much; you can make them lie on any part of the field you want them to, by erecting a cheap structure for shelter for them, on wheels so as to move it to different parts of the farm, and by placing a little salt under this shelter, the sheep will always stay there, except when they are feeding; and by this means, you will in time have the whole fertilized, and this course would be of advantage on land that cannot be plowed. He plowed his land once in three years, and reseeded, and got good crops of corn, spring wheat, &c., when he again sowed, and was sure of a good return.

In answer to another question, the speaker said that they had fences generally in his county, but he was satisfied that sheep could be educated, and even if they jumped walls, a rail placed on the top would check this disposition; the fine woolled sheep rarely jumped, although they would creep through holes in a fence wherever they found them. He closed, by saying he thought they were the pleasantest stock a man could have on his farm.

Hon. JOSEPH WHITE, of Williamstown, being called on for Northern Berkshire, said he had only lived a year in the county, but he agreed to the views advanced by the last speaker, and spoke in high terms of sheep husbandry. He spoke also of the fine short horned cattle raised in Berkshire, but said that since the grant to Williams College, and the railroad had been opened from Adams to Troy, sheep husbandry had taken a fresh start. Mr. White spoke of Mr. Harrison's farm at North

Adams, consisting of 200 acres of intervale, whose barns, sheds, cattle, crops and income are the best of any in that section.

Mr. PAOLI LATHROP, of South Hadley, said that in Hampden county, all along the Connecticut River Valley, the farmer raised a variety of crops, and their grain crops had been excellent. Spring wheat, where it can be got in in the fore part of April, was a sure crop. Winter wheat, broom corn and onions are extensively grown. It had been asked him whether a pound of mutton could be raised as cheap as a pound of beef, and he was sure that, apart from the wool, it could. He spoke of the cost of grinding corn for cattle, and said that for sheep this was saved, as the sheep digested all its food. He would recommend the South Down for mutton, as it was more easily fattened, and brought a higher price in the market than beef. He had seen a two years old sheep weighing 380 lbs., and two ewes weighing 660 lbs., bred by Mr. Stone, of Canada, who was noted for having the best flock of sheep in the country. Mr. Buffum, of Walpole, N. H., had 32 ewes in his flock, which cost him \$100 each, and he yearly put down 40 acres of his farm to root crops for his sheep, making a handsome income from them.

Mr. SEARS, of Yarmouth, spoke of farming in Barnstable county, and said their best paying crop was cranberries, and told, as an exception, not as a rule, that as much as \$1750 had been realized in a single season from one acre of land, and of a cranberry meadow that had been sold in the spring for \$1500, from which the purchaser had cleared \$1100 the same year from the crop. The average yield of cranberries, he thought, was \$500 per acre.

Hon. JOSIAH QUINCY, Jr., of Quincy, being called on to speak for Norfolk county, said the best crop he had found was manure. He raised 350 tons of hay, kept 80 cows, and followed Dana's method of mixing his manure with swamp muck, and by this means made 100 cords per month. The cotton seed and other meals which he feeds to his cows, make the manure exceedingly rich. He considered manure the most advantageous crop a farmer could raise, and it should be his first care. He believed in top-dressing, and spoke of McDougal's disinfectant which he was trying, and which he had found to nearly destroy the smell in his stables. If this proved successful in what was claimed for it, it would be of immense advantage in top-dressing, by holding the ammonia in the manure for the rain to disperse.

Hon. CHARLES G. DAVIS, of Plymouth, said there was no *regular* farming in his county, but there was a strong disposition there to get a living from their land. It was impossible to say, as

a general rule, what crop was most profitable, as adjoining farms differed so much. He had visited a majority of the towns in the county last summer, and was surprised to see so many good farms. He spoke of the fine fattening land in Hingham, and so far down as Marshfield and East Bridgewater. He complained that the farmers in his county did not make as much as they could from the marine manures, and hoped there would be more advantage taken of this cheap fertilizer. He said that they derived an advantage of absence from frost of 6 weeks over Berkshire and Worcester counties. He thought it would be well to find out how much manure could be judiciously expended to produce the best grass crop, and in this connection he spoke of a lot of meadow land owned by Mr. Boynton, of Sandwich, consisting of  $4\frac{1}{2}$  acres, located behind his livery stable in which he kept 15 horses. The whole manure from his stable was put on this land, which was top-dressed in November, and he had cut from 26 to 34 tons of hay a year, last year cutting 26 tons the first crop, and from 7 to 10 tons the second. He said that on land which was fit for grass they could raise grass, or its equivalent in fodder, and do better than with anything else; but where this could not be done, nothing paid better than keeping sheep.

Mr. SIMON BROWN, of Concord, being called up for Middlesex county, said the county was singularly situated, as she has a market at her doors, having large cities and towns close at hand. In consequence of this, large quantities of vegetables were raised, principally asparagus, celery, turnips, beets and potatoes. They commenced taking potatoes to market by team about the middle of August, and continued this until October, when the crop came in from the North and East. The farmers keep their horses and boys on the road to market, and by this means there are from \$8,000 to \$10,000 worth of potatoes sold at good prices from some of the small towns where they are raised. Asparagus was also extensively cultivated, and a good deal of money was made by it, by sending to Boston, Lowell, Worcester, Lawrence and other large places in Essex county. Milk was another large source of revenue to the farmers of the county, and from Concord alone from 50 to 100 barrels were sent to Boston per day through the year. To supply this, they had to raise a good many roots, and this gives employment to a great many people. The stock of cows has been so essentially improved, as to nearly double in value, within the past ten or fifteen years, and at the same time the farmers have increased in wealth and their farms in fertility.

Mr. Brown then spoke of the raising of fruits in Essex, Norfolk and other counties, and said that some of the finest orchards in the State were

to be found in Middlesex county, and before "the yellows" destroyed the peach crop, the town of Lincoln alone realized from \$8,000 to \$9,000 from this crop. In other high lands in the county good crops of peaches are now grown, and a dealer had told him last year more came to market from the town of Westford than from all the other towns in the State combined. He spoke of the excellence of the apples raised in this county, particularly those grown on granite bottoms, and said that the dealers preferred these as they were more crisp, and kept better, and to obtain these they were in the habit of going to New Hampshire for them. Middlesex county, said he, as a whole, is improving in her agriculture, and this was evident in the better appearance of her farms, the buildings were better, the barns were improved, the fences were good, and on entering the houses you find better furniture, more books, and more of the comforts of domestic life than were to be found ten years ago. He closed by urging on the members of the Legislature and the farmers of the State the importance of attending and taking part in the discussions at these meetings, as in his journeyings through the State he had found an intense desire to know what was done at them by those for whose benefit they were held.

Mr. TYLER, of Somerville, said that from his experience he was satisfied the saving in cutting hay would more than pay the expense incurred for fattening cattle, and Mr. QUINCY entirely coincided with him.

Prof. CLARK, of Amherst, being called on, said he had no idea that a man known not to be a farmer would be allowed to speak at these meetings, but he would say that the discussion he had heard showed that there was a great amount of practical information which, if it could be put in form, would be of incalculable service to the rising generation. We have heard, said he, of stock raising, about manures, the dairy and the raising of cranberries, and he would earnestly recommend that more attention be paid to the raising of farmers.

Mr. ATWATER, of Springfield, said that the farmers in his county had latterly paid great attention to rotation crops, and in doing this were using all their available manures, turning their fields to grass until the yield falls below  $1\frac{1}{2}$  tons per acre. They are also draining the low lands successfully. On the sandy lands they are doing well by sowing two crops of buckwheat and red top afterwards. In the hilly parts of the county, hay, gathered at an expense of \$3 per ton, is a leading crop, and then follows corn. Attention is particularly turned also to ascertaining the actual cost and profit of each crop, and he hoped this would be more generally followed throughout the State.

Dr. LORING, of Salem, said that to a certain ex-

tent the most profitable crop was manure, but this depended somewhat on the manner in which it was applied after you have got it. He made his compost as Mr. Quincy did, and top-dressed his land, which was a heavy clayey soil. He thought that, if a farmer stocked his farm to its utmost capacity, while he thought that he was working for his cattle, his cattle were, in fact, working for him. The speaker said he principally devoted his farm to stock-raising and fattening stock. He also kept hogs, but he kept them on the starvation principle, using them for their work, which was valuable. He endeavored to carry on his farm at as little expense as possible; he did not cut his hay for feed, because his cattle had the machinery for cutting it themselves, and he further said that he thought that in the cut and wet state it furnished no additional nutriment. He raised 6000 bushels of roots last year, and he considered them as profitable as any other crop, as his land was not suited for corn, neither was the climate. He spoke of the productiveness of market gardens in the country, and said he did not think there was an acre of ground in the State that, with the proper labor, cannot be made to pay.

Dr. MASON, of Dartmouth, said the crop in Bristol county was principally hay, and their market was New Bedford; the system of farming was mixed, and but few sheep were kept.

Mr. DAVIS, of Plymouth, spoke of an order which was before the present Legislature in relation to dogs. He thought that if the law, as it now stands, was enforced, it would answer the purpose designed, but he blamed the Selectmen of towns for not enforcing it. He suggested the appointment of a commissioner in each town by the executive, to enforce the law, who would be independent of the vote of the citizens, and thus act as a check on selectmen and police officers.

Mr. BUSHNELL, of Sheffield, suggested that towns be made liable for the value of sheep destroyed by dogs.

Mr. SANDERSON, of Bernardston, said that farmers living on the Connecticut River excel in raising and fattening stock, and in dairy products. They looked like a very respectable body of men, and appeared to be in good circumstances, but he did not know whether this was from the profits of the farm or not.

It having been announced that the subject for discussion at the next meeting would be "*Manures and their Application*," and that Professor Clark, of Amherst, would preside, the meeting adjourned to Monday evening next, at 7 o'clock precisely.

**HOW TO MANAGE BONES.**—A correspondent of the *Journal of Agriculture* gives the following as his experience, every other year, for the past

ten years; that being as often as he could collect bones enough to fill a tub.

With a sledge hammer break the bones into pieces of one, two or three inches; take a hog-head tub, put in two or three inches of hard wood ashes, the same depth of bones; then ashes and bones until full; pound or press solid as convenient; fill with water or urine, all that it will absorb. If done in the spring or summer, by the next spring it will shovel out fully decomposed, the bones being as soft as chalk.

Then, add all your hen manure, shovel and rake it over once a week, for three or four weeks before planting time; by that time it will be finely powdered. Put about equal to a handful of the compost into a hill, for corn, potatoes, squashes, melons, &c., when it will be found to forward the crops to a wonderful degree.

*For the New England Farmer.*

#### MORE ABOUT BEES.

MESSRS. EDITORS:—The breeding and management of bees is far behind most other pursuits. I doubt whether there are as many bees kept in the country now as there were twenty-five years ago. Bee-culture has been "running down." People neglect their bees, seem not to study their nature and habits, yet attend to their poultry, swine, sheep, horses, neat stock, farms, &c. Breeds must be crossed, number of males regulated, suitable food and shelter prepared, &c., &c., but who thinks of applying the same principles of inexorable nature to bees? Who has dreamed that bees would be more profitable for "crossing," or that controlling the number of males, and the number of swarms, might be a pecuniary advantage? I find mother nature just as true in bee-culture as in stock or poultry-culture. Bees need a suitable habitation as well as swine, and though it is not quite so much expense to prepare food and shelter for bees as for swine, yet the bees pay me the best. In the poorest seasons I expect an average of \$5 apiece net profit, on good swarms; in good seasons some yield \$15. The cost of keeping bees is comparatively nothing after the stocks are procured, and hives should not overrun \$1,50 each; nearly all the care necessary can be given at odd times, mornings, noons or evenings, by almost any adept, whether farmer, mechanic, tradesman, doctor, lawyer or clergyman, and will be very pleasant as well as profitable. What is more beautiful than a virgin-white honeycomb, or more delicious to the palate, or more wholesome? Who can look upon it but to admire the mathematical skill in its construction, the ingenuity displayed, and not inwardly ask, is here not intelligence, and an example of industry worth preserving?

I find from years of experience, that bees will "run out" where bred in and in without opportunity for "crossing," and that they can be improved by bringing vigorous swarms from a distance and keeping with others. In some locations bees are kept sufficiently near for all practical purposes of crossing, while in others, they are miles distant. I have usually found wild swarms more vigorous and smart than tame, and profitable to place with them. Bees sometimes swarm too much—then, again, not at all, though apparently they might just as well as not; but

with perfect ease and safety, those that won't can be made to, and those that swarm too much or too small—two small ones should be hived together. I have sometimes put three together, all right.

A poor swarm is not worth keeping, and should be either strengthened or put with another small one; this can be done early in spring, or late in the fall, in the same apiary, but in summer it is more difficult, as bees are so attached to their particular locations: yet it can be easily accomplished by moving one or the other a mile or more distant.

Perhaps the reader may think such freedom with insects armed with daggers, somewhat difficult, if not dangerous; but let me assure him that these, and far more difficult operations, can be performed with perfect safety and ease; and that others as well as the writer of this, open their hives any time they choose—cut out combs or honey, divide and double swarms, take out all the contents of hives, the queens, see the brood, larva, eggs, &c., and show to visitors at all times through warm weather.

*New Britain, Ct., 1861.*

*For the New England Farmer.*

#### CHARCOAL-BURNING, AND A REMARK ON COB MEAL.

MESSRS. EDITORS:—Recollections of years long passed by frequently flit through my mind, and among others, that of charcoal burning. At a period extending from 1785 into the present century, coal burning was much more practiced among farmers than at the present day. Till within a few years, wood-land was considered hardly worth taxing. Farmers that owned large wood-lots in this vicinity had no opportunity to dispose of their wood, short of teaming it from fifteen to twenty or thirty miles; that being the case, those wood-sellers who lived nearest to the cities and large villages could supply them to much better advantage than those from more remote towns; this circumstance was an inducement to the more distant farmers to char their wood, for the greater convenience of carrying it to market, it being much lighter for transportation after being made into coal. Three or four cords of charred wood might be carried at a load, probably, which would reduce the expense of teaming, beside the profit of charring the wood. The operation of carbonizing wood, economically, is a very nice chemical operation; experienced coal-burners, though ignorant of chemical phrases, gain their knowledge, almost to perfection, by practice. They know that too much ventilation causes a rapid combustion, which decomposes the wood, and reduces it to ashes, and that just air enough admitted to continue a slow combustion will insure a good yield of coal. Ignorant and careless coal-burners have burned their wood to ashes, and made a losing business, while others, more careful and scientific, have made coal-burning profitable.

Coal-burning, in this region, has been on the decline, till we seldom see a coal-pit. Since the construction of manufacturing establishments, railroads and new villages, the demand for wood has been so great, and the markets so handy, that

charring wood is nearly done away. Charcoal-burning was considered a healthy business, notwithstanding the annoyance of smoke. The smoke of a coal-pit has a peculiar smell, which will penetrate the air for miles around, and is a sufficient messenger to give intelligence, to distant neighbors, that coal-pits are afire. The time of firing these huge piles of wood, covered with turf, was anticipated with eager expectation, as a day of great glee, by the boys and girls of the neighborhood, who enjoyed the sport of a circuitous run through the smoke. Charcoal is useful for several purposes, beside fuel; it has strong antiseptic properties, and is useful in staying putrefaction; swine are fond of it at times, to correct a morbid tendency in the maw, which is indicated by the avidity they show in cranching it down; they will leave their food to eat coal, when the desire for coal predominates.

#### COBS AND COB MEAL.

Farmers express different opinions about the value of cobs as food for domestic animals; some regard them as no better than saw-dust, while others think they contain nutriment. I agree with the latter, in opinion, from practical observation. Soon after the last corn harvest, I had occasion to shell a quantity of corn before the cobs were fully dry. I sat by our oxen and cows, broke up the cobs, and fed them to the cattle, who devoured them with apparent good relish. I have often fed cattle with cobs before, and observed them to feed at a heap of thrashed cobs for a definite time, but as cobs grow dry they become tough, and hard to masticate, and therefore cattle are not so fond of them. Cattle and swine, like human beings, have an instinctive preference for those substances which afford nourishment to the body, which is evidence in my mind to prove that cobs are nutritious to cattle. Ruminating animals are furnished with digestive organs capable of extracting nutriment from substances which for swine would be entirely inert. Swine being destitute of the ruminating apparatus, derive no nutriment from cobs, ground or unground, after the corn is ripe. I have repeatedly given my hogs ears of corn partially ripe, and they were very careful to avoid as much of the cob as possible. I have occasionally fed my swine, of late, with cob meal, and the poor brutes resented the treatment like a dainty boarder, and would grunt for unadulterated meal. On the whole, I have made up my mind that cob meal is very good for cattle, but worth less for hogs. Cobs, by the pound, are probably of equal value to butts and stalks, and when ground with the corn, are a substitute for chopped fodder for cattle and horses.

SILAS BROWN.

*North Wilmington, December, 1860.*

YALE AGRICULTURAL LECTURES.—Apprehending the effect of the present state of the country in diminishing the interest and usefulness of an agricultural convention, it has been decided to postpone a repetition of the "Yale Agricultural Lectures" to another year. The regular lectures of the Institution on Agricultural Chemistry and the general principles of Agriculture will be given as usual, commencing Feb. 1st.



*For the New England Farmer.*

**TABLE OF CUBIC MEASURES.**

Measurements of cubic contents are usually made in feet or in inches, and if the volume is wanted in any other measure, such as yards, perches, bushels or gallons, the necessary reduction is made from the result of the first measurement.

For the purpose of lessening the labor of such reductions, I have constructed the following tables, which many readers of the *Farmer* will, without doubt, find very useful, as they give in a convenient form the relations which several of our units of measure bear to others.

Its use is as follows: Suppose you wish to find the number of yards in a cord,—the word “Cord” is found at the top of the table; under that, and opposite the word “Yard,” will be found the number of yards in a cord, which is about four and three-quarters. If the number of feet con-

tained in a bushel is wanted, then the word “Bushel” will be found at the top, and “Foot” at the side; under one, and opposite the other, will be found the number required, which is about one foot and a quarter. Opposite “Bushel” and under “Foot,” you find that a foot is about eight-tenths of a bushel; now suppose a bin for holding grain to measure 12 feet long, 8 feet wide and 5 feet deep, then  $12 \times 8 \times 5 = 480$  feet, multiply by .8

and the result 384.0

is the number of bushels, very nearly. The work can be more accurately done by using the full decimal given in the table.

It will also be seen by the table that there are

|                             |                        |
|-----------------------------|------------------------|
| 216 feet in a square.       | 1728 inches in a foot. |
| 125 “ “ cord.               | 537.6 “ “ peck.        |
| 27 “ “ yard.                | 268.8 “ “ gallon.      |
| 24½ “ “ perch.              | 67.2 “ “ quart.        |
| 2150.42 inches in a bushel. | &c. &c.                |

TABLE No. 1.

|         | Square.  | Cord.    | Yard.    | Perch.   | Bushel.  | Foot.    | Peck.    | Gallon.  | Quart.   | Inch.    |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Square, | <b>1</b> | .5926    | .125     | .11458   | .005761  | .004630  | .001440  | .090720  | .000180  | .000003  |
| Cord,   | 1.6875   | <b>1</b> | .21093   | .19335   | .009722  | .007813  | .002430  | .001215  | .000304  | .000005  |
| Yard,   | 8.       | 4.7408   | <b>1</b> | .91664   | .046089  | .037037  | .011522  | .005761  | .001440  | .000021  |
| Perch,  | 8.7273   | 5.1718   | 1.0909   | <b>1</b> | .050280  | .040404  | .012370  | .006285  | .001571  | .000023  |
| Bushel, | 173.576  | 102.862  | 21.6971  | 19.8885  | <b>1</b> | .803568  | .25      | .125     | .03125   | .000465  |
| Foot,   | 216.     | 128.     | 27.      | 24.75    | 1.24445  | <b>1</b> | .311112  | .155556  | .038889  | .000579  |
| Peck,   | 694.306  | 411.448  | 86.7882  | 79.5540  | 4.       | 3.21427  | <b>1</b> | .5       | .125     | .001860  |
| Gallon, | 1388.61  | 822.896  | 173.577  | 159.108  | 8.       | 6.42854  | 2.       | <b>1</b> | .25      | .003720  |
| Quart,  | 5554.45  | 3291.58  | 694.306  | 636.432  | 32.      | 25.7142  | 8.       | 4.       | <b>1</b> | .014881  |
| Inch,   | 373248.  | 221187.  | 46656.0  | 42766.8  | 2150.42  | 1728.    | 537.605  | 268.803  | 67.2006  | <b>1</b> |

The *square* is used by contractors for moving earth, and is a cube measuring 6 feet each way, and containing 8 cubic yards. The superficial square is used in measuring the area of the various kinds of roofing; it is a square surface measuring 10 feet each way, containing 100 square feet. It is said that one thousand shingles will lay a square, but as they are usually put on, they will lay a few feet more than a square. The yard used in areas is a surface measuring three feet each way, containing nine square feet.

The *perch* is used by masons in laying stone-work—supposing the wall to be a foot and a half thick, then a rod in length of the wall one foot high will contain one perch, or 24½ cubic feet. The superficial perch is a square surface measuring sixteen and a half feet each way, containing two hundred and seventy-two and one-quarter feet. An acre contains one hundred and sixty perches.

The *bushel* is the old Winchester bushel of England, which is used in the United States as a standard for dry measure; the Imperial Bushel, which is the present English standard, contains 218.182 cubic inches.

The *gallon* here given is the standard for dry

measure, and contains 268.8 cubic inches. The standard gallon of liquid measure contains 231 cubic inches. The old Ale gallon contains 282 cubic inches. The Imperial (English) gallon contains 277.274 cubic inches. A gallon (231 inches) of distilled water weighs 8.3389 pounds, Avoirdupois. The standard Avoirdupois pound is equal in weight to 27.7015 cubic inches of distilled water. A cubic foot of water weighs about 62.38 pounds.

The following table shows the relations of the cubic contents of each kind of gallon to the others, and also to a cubic foot and a cubic inch:

TABLE No. 2.

|                  | Foot.    | Ale Gal. | Imp. Gal. | Dry Gal. | Liq. Gal. | Inch.    |
|------------------|----------|----------|-----------|----------|-----------|----------|
| Foot,            | <b>1</b> | .163194  | .160460   | .155557  | .133681   | .000579  |
| Ale Gallon,      | 6.12766  | <b>1</b> | .983241   | .953202  | .819149   | .003546  |
| Imperial Gallon, | 6.23210  | 1.01704  | <b>1</b>  | .969450  | .833111   | .003607  |
| Dry Gallon,      | 6.42850  | 1.04910  | 1.03151   | <b>1</b> | .859365   | .003720  |
| Liquid Gallon,   | 7.48052  | 1.22078  | 1.20032   | 1.16365  | <b>1</b>  | .004329  |
| Inch,            | 1728.    | 282.     | 277.274   | 268.803  | 231.      | <b>1</b> |

The complaint is often made against such tables as these for common use, that the decimal notation is not well understood. There is a constant use of this notation in dollars and cents, as \$374.63, in which .63 is a decimal, called sixty-

three hundredths, and it seems to me that any one who can compute annual interest, which is simply multiplying by the decimal .06, can have no difficulty in using these tables.

J. HERBERT SHEDD,  
*Agricultural Engineer.*

*Boston, Jan. 19, 1861.*

*For the New England Farmer.*

#### WHEAT IN MASSACHUSETTS.

How are we to account for the fact, or the opinion, that a few years ago it was of no use to try to raise wheat?

Now, it is a common practice for farmers to sow a patch, one, two or three or more acres, fall or spring, and with as good success as with any other grain. More bushels, per acre, of wheat than rye are raised, and more value than oats, or even corn, taking the labor into account.

Have the seasons changed, or was the opinion which prevailed for a period not well founded? The two last seasons have proved unusually favorable for wheat; and, as they have been cool and more than ordinarily even in temperature, while the grain was maturing, some observing persons have attributed the result largely to these facts.

The corn crop, during these two years, has not come up to the average, especially in 1859.

On 91 rods of land I sowed the 27th of Sept., 1859, one bushel of wheat, rolled in tar, plaster and ashes, from which I had 25 bushels of choice wheat, being at the rate of 41 bushels per acre. On one-half the patch I sowed a bag of 160 pounds of guano, but could perceive no difference in the lot. Practically, that experiment may stand as a representative one, reaching over a term of eight or ten years. It had been under cultivation five years—the first in corn, three carrots, and again corn.

I have seen accounts of much larger yields of wheat, and forward this, in order to add the testimony of a moderate farmer, that wheat can be raised to advantage in our own State.

While on the subject, I should like your opinion whether wheat improves by age? I had supposed the contrary was the fact. But happening to keep over a barrel or two of spring wheat until three years old, I found it made superior flour, equal to the best St. Louis, while the first year, we regarded it only as ordinary. S. S.

*Amherst, Mass., Jan. 14, 1861.*

REMARKS.—If wheat is improved by age, it is a fact new to us.

BARLEY FLOUR.—Our old friend, A. PEASE, Esq., of Newport, N. H., formerly well known by the newspaper fraternity, handed us a sample of *barley flour* to-day, which is very fine. It is nearly as light colored as wheat flour, is perfectly sweet, and has a slight taste of that peculiar barley flavor so much esteemed by many persons. It was made from a crop of barley yielding nearly *fifty* bushels per acre. This is a good example, which we trust many will profit by.

#### SHEEP AND SHEEP CULTURE.

BY DR. JOSEPH REYNOLDS, OF CONCORD.

The following extracts are from an excellent Report to the Middlesex Agricultural Society, upon the subject of *Sheep and Sheep Culture*, by Dr. Joseph Reynolds, of Concord, a gentleman familiar with the care of sheep in his youth, and who has given them more or less attention all through life.

Previous to 1812, most farmers in the county kept a few sheep, and many who did not claim to be farmers kept one or more cossets to supply wool for domestic use. The wool was spun and woven or knit in the family. Large quantities of cloths, flannel and blankets were manufactured of excellent fabric and enduring quality. Until after the period above referred to, little woolen cloth was made in manufactories established for the fabrication of woolen cloths. The commercial difficulties of that period interfered with the importation of wool and woolen goods, and led to the establishment of manufactories, and to an increased demand for domestic wool. About the years 1808 and 1810, Chancellor Livingston and Mr. Grove, of New York, Col. Humphreys, of Connecticut, Mr. Jarvis, of Vermont, and other public spirited citizens, imported large numbers of merino sheep from Spain and France, which were rapidly distributed, and greatly improved the character of the native breeds already in the country. Elkanah Watson, Esq., the father of the Berkshire Agricultural Society, deserves honorable mention also in this connection, for his efforts to introduce merino sheep into this State. About 1786 the French government devoted great attention to the culture of sheep. It imported from Spain the finest merino sheep that could be obtained, and in the space of ten years, by care and skill, raised the average product of wool from 6½ pounds to 9 pounds per head. The King of Prussia and the Elector of Saxony at the same time devoted earnest attention to sheep culture.

From the European flocks thus improved, the finest samples were selected for importation into this country. The climate and soil, especially of New England, were found well adapted to their constitutions and habits.

These importations, with those which have been subsequently added to them, constitute the basis of the wool-bearing sheep now in the country, and it is believed that no finer sheep can now be found in the world for the production of wool.

They belong to the smaller varieties of sheep, are prolific and hardy, and their thick heavy fleeces enable them to bear the variable and extreme weather of our climate. They are now spread over the Western and Southern portions of the country.

In 1850 there were nearly twenty-two millions of sheep in the country, yielding fifty-two and a half millions of pounds of wool. The number has greatly increased since 1850, and yet more than twenty millions of pounds of wool are annually imported.

Within a few years the long woolled varieties have been introduced, among which the Leicester and the Cotswold are the most prominent. Their wool is particularly suited to the fabrication of

worsted goods, and the demand for it is rapidly increasing.

They are much larger than the fine wooled varieties, are hardy and prolific, and make excellent mutton, not unfrequently weighing from 40 to 50 pounds per quarter.

The South Downs, a middle wooled breed, have also been introduced within a few years, and "for hardness of constitution, beauty of form, and combined value of wool and mutton, rank with the best in Europe or America. Their mutton indeed has a reputation that commands for it a higher price than that of any other breed." In England their meat usually averages about twenty pounds per quarter. They are remarkably prolific, and easily reared. They prosper upon light pastures, and winter well with ordinary keeping. In their habits they are domestic, docile and quiet. They yield an average fleece of six to seven pounds. Probably this breed is better adapted to our rugged climate and hard soil than any other. But the particular breed which any one should select, must obviously depend upon circumstances, and the particular object he has in view in keeping them. The value of mutton, the price of wool, the convenience of the market and the value of the land must be taken into the account. The merinos and small breeds will thrive well on a broken rocky soil where scarcely any other stock will obtain a living.

The Leicesters and Cotswold require rich and fertile pastures. Lands in the immediate vicinity of a market are usually considered too valuable for the production of wool, at least it may be raised with more profit on cheaper lands, and more remote from market, while the production of mutton is more successfully carried on upon good soils with ready access to market.

The facilities of transportation are now so great, that wool may be brought to market, even from distant parts of the country, at the cost of a trifling addition to the value of the pound. Hence it is obvious that wool-growing may be carried on more profitably where lands are cheaper than they are in most parts of this county. The keeping of sheep then merely for the wool, will not probably be resorted to by the farmers of Middlesex.

But it is believed that by combining the advantages of wool-growing and mutton-raising, the keeping of sheep may be again rendered profitable, and that the keeping of the large breeds chiefly for their mutton will be found good husbandry.

The Hon. James S. Grennell, of Greenfield, in his report upon the stock exhibition in that place in 1859, remarks that "the larger breeds will produce more lambs, and by good keeping, both their quantity of wool is increased, and their tendency to breed, and their capacity to bring up their lambs. Such sheep will bring up an average of 15 lambs to 10 sheep. Large early lambs, well started, and allowed a pint of meal daily for the last two months, will readily find a market here in May and June at \$5 per head. The care and trouble of such a flock bears no proportion to that attendant on a flock of fine wooled sheep. The larger breeds are not only more prolific, but harder, and on account of their size, less liable to be worried by dogs, less liable to disease, not so apt to ramble, and bringing quicker returns, are more profitable to small farmers. The mid-

dle wools, when six years old are capable of being made into superb mutton from their aptitude to take on fat, and carcasses averaging 110 to 120 pounds, at 10 cents per pound, and a dollar for the pelt, making \$12 or \$13, show a handsome profit on the cost of raising and fattening. Of the various breeds, probably the South Downs are at present the greatest favorites."

The committee of the Plymouth County Agricultural Society, on sheep, say, "We would recommend for every farmer, however limited his number of acres, to keep a few sheep." A writer in the *Country Gentleman*, the last year, says, "I bought three ewes, two years ago this spring. Two of them had four ewe lambs, and last year, six of them had eight ewe lambs, making in all 15 ewes. I paid \$14 for the first purchase, and the wool has about paid the keep, and I have just received \$75 for the flock."

The above remarks are as applicable to the farmers in Middlesex as to those in any other county in the State.

But the keeping of sheep is profitable not only from the product of wool and mutton, but from the tendency which their keeping has to improve and enrich the land for all Agricultural purposes. There is no manure dropped by animals upon the land so fertilizing as that of sheep, and none so evenly distributed, or which suffers so little from waste. A distinguished German writer has calculated that the droppings of a thousand sheep during a single night, would manure an acre sufficiently for any crop. By using a portable fence and moving it from time to time, a farmer might manure a distant field with sheep, at less expense than that of carting and spreading manure. By a little pains, a large quantity of excellent manure may be made in the winter, from a flock of sheep. Another and a stronger reason remains why the farmers of Middlesex should return to sheep husbandry.

Many of our pasture lands exhibit a broken and rocky surface but little amenable to the plow. Other portions are sandy plains, and lie at a distance from the homes of their owners. Since the discontinuance of sheep culture, these pastures have been severely cropped by neat stock, and have now become nearly worthless. Many of them are covered with bushes and briars, or with mosses and worthless grasses. Experience shows that sheep walks instead of becoming exhausted, uniformly grow better and more productive, and that one of the most effectual means of destroying the bushes and mosses, and bringing back the white clover and sweet grasses to an exhausted pasture, is to turn upon it a flock of sheep. A gentleman writing from Plymouth county in 1859 remarks, "Some of the finest examples are afforded here of the effects of feeding sheep upon pastures that have become exhausted of nutritious grasses, and grown to bushes, briars, brakes and moss. I have seen pastures to-day that had become almost worthless, but now green and smiling as a lawn, with every inch among the rocks covered with the richest pasture grasses, and not a blackberry vine, wild rose bush, mullein or other useless plant in sight. The sward does not seem bound and compact, but loose and porous, and filled with the most healthy and vigorous roots. The sheep grazing upon these pastures afford ample evidence of the richness and luxuri-

ance of the grasses upon which they feed. These examples, with similar ones which I have observed in other places widely remote, would seem to shed light on the perplexing question so often asked, how shall I reclaim my old pasture? All over New England there are thousands of acres producing little or nothing, that might be renovated by the introduction of sheep upon them, while the profits of the sheep themselves I believe would be larger than from the same amount of money invested in cows. I have been told of an instance where a hundred acre pasture fed scantily only twelve sheep and six cows the first year, but on the second summer fed well twenty sheep and twelve cows, and continued to increase in fertility until more than double this number was fed upon it." R. S. Fay, Esq., the highly intelligent Secretary of the Massachusetts Agricultural Society, remarked in 1855, "The great diminution of sheep husbandry in this State, is much to be deplored. Sheep are the most active and profitable agents in the work of amelioration and farm improvement." There is abundant testimony from intelligent and observing agriculturists to the same effect.

The principal objections to sheep culture are the destruction occasioned by dogs and the expense of fencing. The former objection we trust is obviated by the wise provisions of the existing law. If they are not sufficient, the matter is in the hands of the farmers themselves. They can have such legislation as will meet the necessities of the case.

The second objection would have more weight, if we had only the long legged agile breed of sheep that roamed ever our hills sixty years ago. But breeds are now to be found, that are quiet and orderly, and may be easily restrained by a common fence, or at most by the addition of an extra rail, or a pole on the wall, and these are the breeds which both interest and convenience will induce our farmers to keep.

Our conclusions then are that the farmers of Middlesex should return to the keeping of small flocks of long woolled or middle woolled sheep, that they will find their products of wool and mutton a source of profit, and especially that it would be the means of ameliorating the condition of the exhausted pasture lands, and restoring them to their former fertility.

**STRAW CUTTERS.**—A correspondent of the *Rural New-Yorker* says: I am so great a believer in the economy and utility of cutting all our coarse fodder, not only for feeding, but for bedding in the yard and in the stable, that I have urged some of our geniuses to attach to the tail of a threshing machine a contrivance to cut every particle of straw into half, three-fourths, or inch pieces, as fast as it passes from the machine.

**THE LIME BUSINESS.**—The *Rockland, Me., Gazette*, gives the following statement of the condition of the lime business at that place:

We learn from Alden Ulmer, Esq., General Inspector, that the whole quantity of lime manufactured in this city, during the year just closed, was 899,160 casks, being an increase of about 50,000 casks over the manufacture of the previous

year. Messrs. F. Cobb & Co. have manufactured about one-fourth of the whole quantity. Of the thirty-five patent kilns in the city, only five are now in operation, business having been closed for the season at all the others. A few of the old kilns are in operation, but there will be little or no demand for lime until the opening of spring business. Wood and casks command but very small prices.

*For the New England Farmer.*

## MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

A MOVE IN THE RIGHT DIRECTION.

We have, already, in Massachusetts, a great many institutes of learning, and any one who has the means and time can perfect himself in almost any branch of science or art. Yet there is a great want, at present totally unsupplied. We need some kind of an Institute which shall be a central point of art and science, to which any one may bring his store, large or small, and from which all may be free to cull that which may be most useful to themselves; a grand exchange of knowledge and store house of art, to which the humblest and greatest shall contribute, and from which all may receive; a university and museum in which the student shall spend an hour, or a life time as his means and inclination shall determine.

At present there is a division between men of science and men of art; for the benefit of each, this should cease to exist. The theorist needs facts that his theories may approach the truth and be useful; these facts he cannot obtain for himself, but must receive from the artisan, the dealer in facts. In his turn the artisan must have rules to guide him to intelligent labor, and these can only be obtained from the generalization of facts, which is the work of the philosopher. In short, the minds of the theorist and artisan must be in communion.

Within a short time a scheme has been devised which, if matured, will supply all of these wants in the most ample and generous manner. I refer to the project of establishing an institute to be called the "*Massachusetts Institute of Technology*." The committee having this enterprise in charge, have already issued circulars setting forth the object, and means which they hope to employ to bring it to a successful end. Pursuant to a call from this committee, a meeting was held in Boston on the 11th inst., at which Prof. W. B. RODGERS, Chairman, briefly stated the object of the meeting to be the inauguration of some formal and direct action by which an association may be formed, and a charter obtained. On motion of Mr. E. B. BIGELOW, a committee was appointed to procure an act of incorporation and endeavor to obtain a grant of land upon the Back Bay for the use of this institution. The committee consists of Prof. Rogers, James M. Beebe, E. S. Tobey, S. H. Gookin, E. B. Bigelow, M. D. Ross, J. D. Philbrick, T. D. Storer, J. D. Runkle, C. H. Dalton, J. B. Francis, J. C. Hoadley, M. P. Wilder, C. L. Flint, Thos. Rice, John Chase, J. P. Robinson, F. W. Lincoln, Jr., Thomas Aspinwall, J. A. Dupee, E. C. Cabot.

The meeting was eloquently addressed by several gentlemen. Prof. Pierce likened knowledge

to a pyramid; its apex cannot be raised without the enlargement of the base; the facts and experience of the artisan form the foundation; in proportion as that is enlarged and improved, the structure may be heightened.

Dr. GANNETT saw in this project a means of strengthening the bonds of union, and of raising man up to the contemplation of higher duties.

"In contemplation of created things,  
By steps we may ascend to God."

Jan. 12.

WILLIAM EDSON.

#### EXTRACTS AND REPLIES.

##### TIME FOR CUTTING TIMBER.

There has been considerable discussion of late, in the *Farmer*, about the time to cut timber. I have a fact to the point, which I will state. On the 12th of July, 1798, my father's barn was struck with lightning and consumed. The neighbors assisted, went to the woods and cut all the timber except the braces, hewed it and had another frame erected, 50 by 30 feet, in just two weeks. That timber is as bright now as new timber, with but very little powder-post. The large timber is pine, and the small hemlock.

I want to sow some wheat, the coming season; will you tell me, through the *Farmer*, which you think to be the best kind for this locality, and where it can be obtained? My interest in farming increases with my age, and inability to do the labor.

THOMAS HASKELL.

*New Gloucester, Jan., 1861.*

REMARKS.—The opinion is gaining ground, that summer is the best time to cut trees for timber, as well as for pruning.

*Java or Coffee* wheat is raised in considerable quantities in this State. It is a spring wheat, and ought to be got in early, say by the 15th of April, and covered two or three inches deep, if the soil is dry; if a little wet and sticky, one inch is enough. It is plenty, and can be obtained at the agricultural stores.

##### MANURES AND THEIR APPLICATION.

I was glad to hear this topic announced for discussion at the Agricultural Meeting of last week. It seemed like meeting an old acquaintance, whom I had not seen for a long time. I remembered to have suggested the topic, years ago, when a member of the voluntary Board of Agriculture.

Manures are to the farmer what emphasis is to the orator. You all remember the teachings of our school-books as to oratory—the first essential is said to be emphasis, and the second is emphasis—and the third is a due regard to emphasis. So says the distinguished farmer of Quincy. Manure is the best crop that can be grown on the farm—because, without this, no other crop can be grown—certainly not, after several years' cropping and exhausting the soil.

It is with manure, as with everything else on the farm, it should be kept within due limits. It is not good farming to expend five dollars for manures, when your crop grown will not be worth more than three. There are too many instances of this kind of farming. There is a due propor-

tion to be observed in all these things. No larger quantity of manure should be applied to land, than can be *profitably* applied. Whatever is done more than this is waste. You will not find the man who digs his own mud from the swamp, and carts home his own night soil from the city, thus lavishly squandering it. But he will carefully compost the two, and so distribute the compost upon the land, as that the harvest of autumn will rightly balance the account. P.

*Jan. 28, 1861.*

P. S. Such would have been my ideas, if I could have been present at the discussion. I was misrepresented in your columns of Saturday last, by being made to say that our farmers grew 20 or 30 bushels of corn to the acre, when I said they realized a profit from the culture of corn of twenty or thirty dollars to the acre.

##### TO DESTROY INSECTS ON FRUIT TREES.

Much has been said about destroying insects on fruit trees. I have tried many ways, but have found none so good as the following:

For a common-sized plum tree, fill six or eight vials about two-thirds full of water, well sweetened with loaf sugar, and hang them on different parts of the tree, about the time it is blossoming, and the insects will take that before the fruit. I have filled vials twice in one season, and found among them hundreds of insects such as I never saw or heard of before.

*Another for Rose Bugs.*—I have never seen a better way to rid trees of these pests than to smoke them. Take an iron vessel, put in coals, and set it under the tree on the head of a barrel, and then put in old scraps of leather; as this smoke is every way offensive to them, they will soon leave the tree; by giving it a good smoking they will not return. These fellows, as soon as they have shed their yellow wings, attack horses, being the small horsefly which is so troublesome through the summer. H. WHITE.

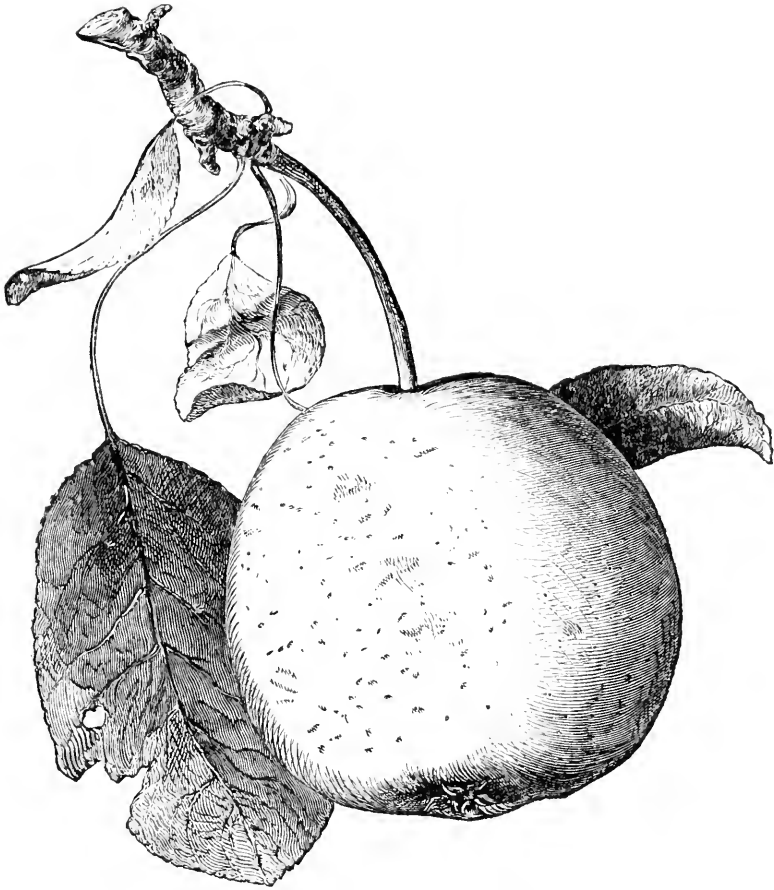
*South Hadley, Mass., Jan. 28, 1861.*

##### THE TOWN OF LYME OUTDONE.

Much has been said and written of late, relative to the remarkable productiveness of Lyme, N. H., in potatoes, as having raised in one school district on five farms, the enormous amount of 9,890 bushels the past season! Well done, old Lyme! She has done nobly, and so far, of course, has borne off the palm. The following statement, I think, will leave Lyme a little in the shade. The town of Lisbon, same State and county, produced the past season, according to careful estimate, in round numbers 200,000 bushels of potatoes; one school district in said town produced in round numbers, 24,000 bushels; five farms in said district produced, in round numbers, also, 16,000 bushels! Now, Mr. Editor, I think by this time you will see that old Lisbon comes out a little ahead. *New Hampshire Journal of Agriculture* will please notice. P. YOUNG.

*Lisbon, N. H., Jan., 1861.*

"M. W. H." must keep trying, as practice makes perfect. But select practical subjects, that you are acquainted with—then relate them as you would in a conversation with a friend.



MUSKINGUM PEAR.

This pear was introduced about twelve years ago from Ohio, where it originated. It is not among the best varieties, and considering the multitude of other kinds which are all desirable, this is a fruit which has not enough good qualities to give it a place in a small collection. The late S. W. Cole thought highly of the fruit on its first introduction here, and his opinion is still held in high estimation. He says of it, that he found it perfectly hardy, and a great grower, and considers it as well adapted to a more northern climate. The fruit is rather large; roundish to obovate; greenish-yellow, with many dark specks, and much russet, seldom a brownish blush; stem long, medial, in a narrow cavity; calyx slight, open, in a slight, or with no depression; flesh yellowish-white, very fine, tender, melting, juicy, of a sweet, high, aromatic flavor.

It ripens from the middle of August to the middle of September.

REMEDY FOR THE PEACH BORER.—J. Van Buren, of Clarksville, Ga., gives the following as his remedy for the Peach Borer:

“Take about a half pint of common salt, sew it up in a small bag of strong cotton cloth; tie this in the fork of the tree, where let it remain until the salt is dissolved by the rains that fall, which will be in the course of two years, and the work is done.

“The brine that runs down the trunk of the trees will kill both worms and eggs as they are deposited; besides, it proves a benefit to the tree. Should there have accumulated a hardening of gum at the surface of the ground, as is sometimes the case, it should be removed so that the solution may reach the worms. It is equally as applicable for the apple tree borer and aphids at the roots.”

REMARKS.—This is so easily done, that we have no disposition to discourage any from trying it. Unless the bag encircles the whole tree, so as to cause the brine to flow down over every part of it, there would be spaces left exposed.

## LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The fourth meeting of the Legislative Agricultural Society was held in the Representatives' Hall, on Monday evening, and was fully attended. In the absence of Prof. CLARK, of Amherst, Dr. GEO. B. LORING, of Salem, was called on to preside.

On taking the chair, Dr. LORING stated that the subject for discussion was, "*Manures, and their application to the various crops and soils.*" He then addressed the meeting as follows:

At the last meeting, I expressed an opinion that the application of manures was fully as important as their manufacture. I think it is more so, inasmuch as it bears more immediately upon our crops. And yet the two processes are so closely connected that it is difficult to deal with one, without dealing with the other.

I stated here last winter that I thought well composted and properly disintegrated or decayed manures should be applied to all crops, so far as possible. I have seen no reason to change my ground. I have been compelled from necessity to use green manures in some cases, since that time—but I have done it, fully aware of the extravagance of the operation, and of the difficulties to which I was subjecting my plants in their search for food among the fertilizing materials with which I had supplied them.

In speaking of manures, I mean farm-yard manure, the only universal manure, the only manure which contains all the constituents which our cultivated crops require, and for which every artificial fertilizer is merely a substitute—the only manure which comes within the reach of all our farmers. Now in comparing what is called green manure with that which is well rotted, it will be found that the latter contains, in much higher degree, those constituents which all plants require in their growth. In nitrogen it is far richer—containing 2.47 per cent to 1.90 per cent. in the former. The insoluble mineral matters are largely increased in well-rotted manures, such as silica, lime and potash. The soluble organic matter, containing nitrogen, is more than double that in green manure. It is proved to be richer in all soluble fertilizing constituents.

It has been distinctly shown that the acids which are required to combine with potash, soda and ammonia in the formation of soluble compounds are generated by the fermentation of manure—that ammonia is produced and fixed by the same process—that the whole mass becomes more easily available to plants—and that the constituents lost by fermentation, being carbonaceous and non-nitrogenized, are of but little intrinsic value in agriculture.

It seems, therefore, that green manure must go through certain chemical changes before it can become of service to the plants; and these changes must be brought about before the manure is applied to the crops, in order to hasten its operation. It is a well composted, well fermented, thoroughly disintegrated manure heap which contains the proper food for plants—a manure heap in which the various soluble salts are fully developed, in which ammonia is held fixed as far as possible, and in which, by the use of muck or some form of decayed vegetable mold, the constituents of manure and urine are properly diffused.

For this purpose there can be no doubt that a sufficient supply of muck, or loam if muck cannot be obtained, mixed with the manure, in such a manner as to avoid the heat of the sun and the washings of rain, will produce the most valuable fertilizer for the farmer. The most convenient place for this process is a barn-cellar, which can easily be constructed so as to avoid exposing the hay and animals, in the barn above, to any injury from the escape of noxious gases.

In applying manure, reference should be had to the soil with which it is to be mixed, and to the crop which is to be raised. On retentive, clayey lands, manure should undoubtedly be applied to the surface and harrowed in lightly—or used as a top-dressing to grass, for which such lands are peculiarly adapted. On such soils the manure may properly be applied for some time before planting. On sandy soils, however, manure should be applied shortly before the seed is planted, and covered more deeply. I suppose it is useless to expect such soils to be continued profitably in grass for a long time, simply by top-dressing.

The use of marine manures is necessarily confined to so small a portion of our commonwealth that it hardly demands discussing.

In some portions of our commonwealth, soil may be "progressed," or made available to growing crops, by means of artificial fertilizers, such as guano and the phosphates. This may be done profitably on farms used for supplying the markets with vegetables, in which case the stock of cattle kept is small. It may also be done as an aid to a short supply of farmyard manure, on farms which are incapable of furnishing sufficient materials to bring them up from a low condition. It is very doubtful, however, whether they can be advantageously employed, in most of the farming to which our State is adapted.

I think all manure should be applied in such a manner as not to deprive it of atmospheric influence. A mass of manure buried in the earth, or hermetically sealed up, would remain in an insoluble condition for an indefinite period of time.

Fermentation would be impossible. And every practical man must have noticed that in a large compost heap, there are many deeply buried portions, which are never exposed in forking, and which retain their original greenness, unchanged, while all the remainder of the heap is undergoing the fermenting processes, and developing all its fertilizing properties. Does not this furnish us some hint for the proper application of manures? And does it not teach us that in light lands it may be buried deeper, and must be in order to protect it, than it is in closer, heavier, clayey lands?

For experiments upon the application of manures to specific crops, I shall be happy to call upon those who have made them in careful farming. And having, as I think, suggested the general principles of preparation, I will call on gentlemen present to state their mode of application.

JOSEPH QUINCY, Jr., of Quincy, being called on, said that he presumed he prepared more manure than any other man in the State. He kept about 80 cows, and in the preparation of the manure followed the directions of Dr. Dana in his Muck Manual. Dr. Dana, in his thorough investigation of the subject in Lowell, had found that every cow produced  $3\frac{1}{2}$  cords of solid manure per annum, and the same amount of liquid, the latter being the most valuable. The speaker said that mixed with double the quantity of muck, cow manure made the best fertilizer known. He prepared on this plan 100 cords per month. He had a good muck bed on his farm, but from his mode of preparing this, it became as dry and fine as snuff, and in consequence, he had to make a double trench, behind his cows so that the liquid from them would run freely into his barn cellar. His manure, he calculated, would pay the entire expense of carrying on his farm, and he reckoned it well worth \$5 per cord.

He top-dressed 60 or 70 acres, and as his manure was removed from the cellar he made compost heaps of it; first a layer of muck, then one of manure, and so on until the heap was large enough, when it was covered with muck, and when the frost is out of it he has it turned over. He soiled all his cattle, feeding on rye, the grasses, and Indian corn, and roots. He said it was thought that you can never get more out of a cow than you put in, but he thought differently, and spoke at length of the gain in feeding cows well, as by that means every product is increased in value. Speaking of guano, Mr. Quincy said that the reason of its great value was because the bird fed on fish, the richest food, and all it eat goes to soil.

In his opinion, there was a trouble with us in the want of a proper proportion between the value of our farms and the quantity of active capital

on them; as, if a farm was worth \$500, a man should have \$4500 active capital to keep on it. He said the old Roman maxim, "Admire large farms, but cultivate small ones," was worthy of more attention. He considered his few acres of muck land worth three times as much as any other of his farm. He closed by saying that a principal difficulty about foreign manures was their impurity and their expense, and he alluded to the method of turning in green crops as fertilizers, as practiced in New York.

In answer to a question, he stated that his barn cellar was water-tight, and that in summer he pumped out the liquid, and manured from the cart, and in winter he threw in muck to the cellar, and absorbed the liquid.

MR. WHITE, of Petersham, thought the farmers in his section could not afford to go to the expense the last speaker did, as they had not muck or soil to draw to the barn, and he wanted to know why the manure might not be mixed with the soil in the field. He stated that Dr. Fisher, of Fitchburg, saved all the manure on the farm; but he says he cannot afford to cart muck to increase the manure. He said he had been trying an experiment on corn, as desired by the Board of Agriculture. He had used 12 cords of manure to 4-5 of an acre of land, and the result had been perfectly satisfactory, but he found that the portion plowed in the deepest returned the poorest crop. He said they applied top-dressing on their mowing fields, and they considered soiling their cows was not so profitable as grazing them, although they did not get more than half the manure.

MR. TYLER, of Uxbridge, said he had a tight barn cellar, and he covered the floor 6 inches deep with loam, using half this to compost with. He kept from 6 to 8 cows and a horse in the barn, and made from 10 to 16 cords of manure a year. He applied this on 2 to 3 acres of land in corn, harrowing in 6 inches, and his average crop was 60 bushels of shelled corn (in January) to the acre, and from observation of his neighbors' crops he was satisfied his plan of manuring was the best. He fed his cattle on cob and corn meal and shorts; he had tried cotton seed meal, but he found corn meal equally as good. His ground was a deep, sandy loam. In relation to wheat, he said that by preparing the ground late in the fall, by plowing and harrowing level, he had found he could gain two weeks in the spring.

AMASA WALKER, of North Brookfield, complimented Mr. Quincy for his efforts in bringing the system to such perfection, but said that, as the circumstances of farmers varied so much, but few could follow out the plan he adopts. He said he should speak of artificial fertilizers, and he hoped that before the Legislature adjourned a law would be passed for the inspection of foreign manures,



similar to that in force in Maryland. He said immense quantities of guano were imported into Baltimore, and it was used in very large quantities on the plantations, with the best results. Here there was no confidence as to the genuineness of the article. He had experimented with guano successfully for several years, and he had also found phosphate of lime very good, and in his opinion the farmers in our State had mistaken their true interests in not using more of these fertilizers. He said that the land farmed by Mr. Quincy was comparatively level, while the farms in Worcester county were so hilly that it cost from 40 to 50 cents per load of half a cord to get the manure on to the ground, and thus the artificial manures were advantageous.

He considered 200 lbs. of guano equal to six loads of our common manure, the latter costing \$15 when applied to the land, while the former would only cost \$8, thus effecting a saving of nearly 50 per cent. in producing the same crops. Last year, he had raised on a very poor pasture, that had never been manured to any extent, 50 bushels of very heavy oats to the acre, by the application of 200 lbs. of guano, and other experiments, had resulted in like manner. Of course the first object should be to get all the common manure on the farm, but as this would not be enough for ordinary purposes, he would recommend guano, and he proposed to increase the application of it on his farm, next year, threefold.

SIMON BROWN, of Concord, said he believed in the use of guano, but he thought farmers should make it themselves. It is excellent as an auxiliary, but should not be depended upon as a principal. If he could have his way, he would keep his cattle as compact as possible for their comfort, and have a barn cellar with a bottom of clay, four or five inches deep, well pounded down; then he would put meadow mud, sand or sawdust in one corner, and every morning would cover the droppings from the barn with this mud or sand, letting it all remain through the winter until it was wanted for use in the spring, when he would have a pasty compound of the richest fertilizer. If he used it on sward land, he would plow with a double plow, and cart out in the green state in the spring, and plow it in. By applying to the surface in September, and turning it in by plowing, you have in the spring a soil rich enough for anything. On stubble, he said he had covered the ground with manure in the fall, and in the spring plowed again, and with this treatment he had planted parsnips one year, and got over 1000 bushels to the acre, never having seen the bottom of a single one, the man who dug them remarking that it was "like digging post-holes." He had also raised excellent crops of carrots, mangoes, &c. He thought Mr. Walker was mistaken

about guano, and if we believe in our hearts what he advocates, it will be a most unfortunate thing for our State. In his opinion, the speaker said, Massachusetts is from half a million to a million dollars worse off to-day from the use of guano. He was recently in company with several old practical farmers, who had used guano, more or less, for from 5 to 10 years, and they condemned its use as a principal agent. Guano, said he, where ammonia predominates, is a stimulant and not a fertilizer but a fertilizer when abounding in phosphates. He had used American guano with fine results, as it starts corn in the hill wonderfully quick; as an auxiliary, guano may be good, as a main manure it is not so.

The speaker said that if a portion of night soil was collected and mixed with meadow mud and then sprinkled with plaster of Paris, and in spring or summer turned over, an excellent compost would be made, and if it was prepared too late for application in the fall, barrel it up. If the manure is scattered broadcast on the land in spring and plowed in, and the compost applied to the hills of corn, it will force it as well as guano. The droppings from hen roosts, mixed with mud or sand, had also been used in the same way by many farmers in his county. He also recommended taking a leaky molasses hogshead and sprinkling in it a bushel of plaster of Paris with meadow muck, and then thoroughly saturating this with urine until the smell of ammonia was gone, when an excellent substitute for guano was ready. The contents of the hogshead might then be barreled up for use, and thus a farmer be all the time making this compost. By applying this in the hill, corn will come up quicker, and you can gain two or three weeks. He did not wonder that \$65 per ton for Peruvian guano was discouraging to farmers, and he thought the use of it had been a curse to Massachusetts.

Mr. WETHERELL, of Boston, said he thought it mattered not whether the vegetable matter is decomposed in the cow or in the ground, and to show that, he cited the opinion of Liebig, who stated that a crop of clover plowed into the ground would contain more fertilizing properties than if fed to cattle and applied in the form of manure. He spoke of an experiment on a field of turnips, feeding one-third to sheep in the field, one-third to them on the ground on which they grew, and plowing the remaining third in, and the result had been that the farmer had raised the next year 46 bushels of oats on the first third, 70 bushels on the second and 80 bushels on the last. He spoke of another farmer who had used 300 lbs. of Peruvian guano to an acre of sandy plain where nothing would grow, and he had harvested 50 bushels of corn to the acre from it. He asserted

that guano is a fertilizer, and a highly concentrated manure. He did not know as to the economy of using it, but he knew that many farmers consider it a profitable manure.

Mr. BROWN thought the last speaker had shown the opinion he expressed, that guano was not a fertilizer, was correct. No man who had used guano solely for ten years would say it had improved his land. He admitted that it stimulated the fertilizing qualities of the soil, and in reference to the use of it in Maryland, said he had a letter in his possession from persons there who said, if the practice of manuring with guano was continued, the time would come when they could not raise five bushels of wheat to the acre.

Mr. FISK, of Shelburn, said he had listened to what had been said on the subject with much interest, but he thought those who had spoken were princely farmers, and their practice would not answer for the farmers in his part of the State, as they were, he regretted to say, poor; and, further, that there were few farms that were not mortgaged, and thus had the life-blood taken from them. Our people, said he, are not cow men exclusively, and much of our land cannot be plowed and they cannot soil their cattle, as they cannot get their sheep, young cattle and colts into the barns for the purpose, although some of the farmers are now soiling their cows. He condemned the use of guano and the phosphates, stating that the Franklin county farmers relied on their cattle for good strong manures which would increase their crops years in succession, and not exhaust their fertilizing qualities in a single crop. We have all, said he, barn cellars, and in these we keep hogs on the starvation principle, and make them work. We don't know about the chemical properties of our manure, but we judge by the appearance and smell. He agreed with Mr. Brown in relation to the application of manures, but he did not believe that the corn crop was before the hay crop in Western Massachusetts. He spoke of Prof. Mapes having induced his neighbors to invest money in superphosphate of lime, and said they had all thrown away their money. They had come to the conclusion to put their money into good hard corn, and that the manure, from a good fat ox is worth all the foreign manures that come here. He spoke of sheep manure and said that they put it in the cold, wet earth, and although it did not yield a first-rate crop in one year, yet the second year they got great crops. Speaking of wheat, he said that the farmers in his county got the best and largest crops in the country, and 40 bushels per acre was a common yield. He closed by suggesting that speakers at future meetings be limited to ten minutes.

In accordance with this suggestion it was voted to so limit speakers, except the Chairman of the

evening. It was announced that the subject for discussion at the next meeting would be, "*Flax—to be cultivated at the North as a substitute for Cotton*," and that Mr. S. M. Allen would preside. On this occasion, specimens of the flax cotton, and articles made from it will be exhibited.

ATMOSPHERIC FERTILIZERS.—M. Barral, of Paris, has lately made the discovery that rain-water contains minute quantities of phosphorus. He believes that it exists in the atmosphere in the form of phosphorated hydrogen, which escapes from decaying animal substances. As phosphorus is necessary to the fertility of soils, we have in this discovery a key which unlocks the secret of "summer fallowed" lands becoming fertile. The ancient Hebrews were accustomed to allow the land to rest without cultivation every few years. This was, no doubt, for the purpose of restoring it from comparative barrenness by cropping, to renewed fertility. It is now well known that ammonia also exists in rain-water, and this is held to be the chief of fertilizing agents. Any worn out lands may be restored to fertility by allowing them seasons for repose, in the same manner that Moses provided for the perpetual fertility of the land of Israel.—*Scientific American*.

HOW CARROTS AFFECT HORSES.—The carrot is the most esteemed of all roots for its feeding qualities. When analyzed, it gives but little more solid matter than any other root, 85 per cent. being water; but its influence in the stomach upon the other articles of food is most favorable, conducing to the most perfect digestion and assimilation. This result, long known to practical men, is explained by chemists as resulting from the presence of a substance called pectine, which operates to coagulate or gelatinize vegetable solutions, and favors the digestion in all cattle. Horses are especially benefited by the use of carrots. They should be fed with them frequently with their other food.—*Mark-Lane Express*.

WATER ON STOCK FARMS.—Mr. Strawn, the great Illinois farmer, gives the following method in the *Farmer's Advocate* for keeping water on a stock farm. Dig a basin five or ten rods square and ten feet deep, upon a high knoll. Feed corn in the basin to your hogs and cattle until it is well puddled by the trampling of their feet, which will make it almost water-tight. He says the rains of a single winter sufficed to accommodate several hundred head of cattle, and that it had been dry but once in twelve years.

ENGLISH HEDGES.—Nothing can exceed the beauty and strength of a well trained hedge, but the most of them are in bad order, and a nuisance to the country. Sheep will eat through the best of them. Iron fences are fast coming into use and are much better.—*Cor. of Ohio Cultivator*.

SIDE SHOWS.—After a full discussion, the Ohio State Board of Agriculture adopted the following resolution: "That we recommend to our County Societies to exclude from their grounds all obscene and immoral side shows." Sage advice.

For the New England Farmer.

VIRGIL ON AGRICULTURE.

NUMBER ONE.

Among the readers of the *Farmer* there are, probably, but few who have not heard of VIRGIL—the prince of Latin poets. He lived and flourished nearly two thousand years before us, or just previous to the Christian era. His writings are, therefore, interesting and valuable, as showing something of the state of the world, and the public mind, in those ancient times.

His inimitable Georgics, or that portion of his writings which relate to farming matters, were composed at the earnest request of Augustus Cæsar—Emperor of the Romans. They were written to inspire a love for the farmer's life in the hearts of his countrymen. Long continued civil wars had depopulated and laid waste the lands usually appropriated to agriculture; the peasants had become soldiers, and their once beautiful farms and vineyards were changed to scenes of desolation; famine and insurrection were the inevitable consequences of this dismal state of affairs.

Augustus resolved to awaken an interest in the all-important, but now neglected art, of the husbandman; and began by prevailing upon VIRGIL to employ his genius in recommending it to the people by all the insinuating charms of poetry. Seven of the most vigorous years of his life were spent in the composition of his four Georgics—or agricultural poems—and the result of his labors fully answered the expectations of Augustus. None, but a person of transcendent genius, matured judgment and imagination, could have written so charmingly upon the most common, and too often despised subjects.

VIRGIL himself was the owner of a farm in Mantua, a city of Lombardy. According to his writings, he believed in all the gods of the ancient Romans—for they were many—and was somewhat tainted with the vague and foolish superstitions which, in his day, shrouded the minds of all, both high and low. But the intelligent reader can easily distinguish between reasonableness and absurdity.

He certainly possessed a remarkable mind and a benevolent heart, or he could not have arisen so far above the surrounding ignorance and moral gloom as to become, in some respects, a beacon-light, not only to his own generation, but to succeeding ages far down in the vista of time.

The Georgics are but a small part of his writings, but more useful, perhaps, than those which are more elaborate, and prolix. A few extracts only can be given—and these, perhaps, not the best that could have been selected. Every reader of the *Farmer* would be charmed, amused, and, I think, instructed, by perusing the whole of his works, and especially the portion now under consideration.

His first Georgic commences by giving the general design of each of the four poems.

What makes a plenteous harvest, when to turn  
The fruitful soil, and when to sow the corn;  
The care of sheep, of oxen, and of kine;  
And how to raise on elms the teeming vine;  
The birth and genius of the frugal bee,  
I sing, Mæcenas, and I sing to thee.

While yet the spring is young, while earth unbinds  
Her frozen bosom to the western winds;

While mountain snows dissolve against the sun,  
And streams, yet new, from precipices run;  
Even in this early dawning of the year,  
Produce the plow, and yoke the sturdy steer,  
And goad him till he groans beneath his toil,  
Till the bright share is buried in the soil.  
But ere we stir the yet unbroken ground,  
The various course of seasons must be found;  
The weather, and the setting of the winds,  
The culture suited to the several kinds  
Of seeds and plants, and what will thrive and rise,  
And what the genius of the soil denies.

Nor is the profit small the peasant makes  
Who smooths with harrows or who pounds with rakes  
The crumbling clods: nor Ceres from on high  
Regards his labors with a grudging eye;  
Nor his, who plows across the furrowed grounds,  
And on the back of earth inflicts new wounds;  
For he with frequent exercise, commands  
Th' unwilling soil, and tames the stubborn lands.

The sire of gods and men, with hard decrees  
Forbids our plenty to be bought with ease,  
And wills that mortal men, inured to toil,  
Should exercise, with pains, the grudging soil;  
Himself invented first the shining share,  
And whetted human industry by care;  
Himself did handicrafts and arts ordain,  
Nor suffer'd sloth to rust his active reign.

First Ceres taught, the ground with grain to sow,  
And armed with iron shares the crooked plow,  
When now Dodonian oaks no more supplied,  
Their mast, and trees their forest-fruit denied.  
Soon was his labor doubled to the swain,  
And blasting mildews blackened all his grain:  
Though thistles choked the fields, and killed the corn,  
And an unthrifty crop of weeds was born:  
Then burs and brambles, an unbidden crew  
Of graceless guests, th' unhappy field subdue,  
And oats unblest, and darnel domineers,  
And shoots its head above the shining ears;  
So that, unless the land with daily care  
Is exercised, and, with an iron war  
Of rakes and harrows, the proud foes expelled,  
And birds with clamors frightened from the field—  
Unless the boughs are lopped that shade the plain,  
And heaven invoked with vows for fruitful rain—  
On others' crops you may with envy look,  
And shake for food the long-abandon'd oak.

Yet is not the success for years assured,  
Though chosen is the seed, and fully cured,  
Unless the peasant, with his annual pain,  
Renews his choice, and culls the largest grain.

But sweet vicissitudes of rest and toil  
Make easy labor, and renew the soil.  
Yet sprinkle sordid ashes all around,  
And load with fatt'ning dung thy fallow ground.  
Thus change of seeds for meagre soils is best;  
And earth manur'd, not idle, though at rest.

But, when cold weather and continued rain  
The lab'ring husband in his house restrain,  
Let him forecast his work with timely care,  
Which else is huddled, when the skies are fair:  
Then let him mark the sheep, or whet the shining share,  
Or hollow trees for boats, or number o'er  
His sacks, or measure his increasing store,  
Or sharpen stakes, or head the forks, or twine  
The sallow twigs to tie the straggling vine;  
Or wicker baskets weave, or air the corn,  
Or grinded grain betwixt two marbles turn.

In genial winter, swains enjoy their store;  
Forget their hardships, and recruit for more.  
The farmer to full bowls invites his friends,  
And, what he got with pains, with pleasure spends.

The second Georgic describes the different methods of propagating and raising all kinds of trees and vines, and points out the soils best adapted to each variety.

Thus far of tillage, and of heav'nly signs;  
Now sing, my Muse, the growth of gen'rous vines,  
The shady groves, the woodland progeny,  
And the slow product of Minerva's tree.

'Tis usual now an inmate graft to see  
With insolence invade a foreign tree:  
Thus pears and quinces from the crab-tree come;  
And thus the ruddy cornel bears the plum.

Then let the learned gard'ner mark with care  
The kinds of stocks, and what those kinds will bear;  
Explore the nature of each sev'ral tree;  
And, known, improve with artful industry;  
And let no spot of idle earth be found;  
But cultivate the genius of the ground;  
For open Ismarus will Bacchus please;  
Taburnus loves the shade of olive trees.

\* \* \* \* \*  
Much labor is required in trees, to tame  
Their wild disorder, and in ranks reclaim.  
Well must the ground be digg'd and better dressed,  
New soil to make, and meliorate the rest.

\* \* \* \* \*  
But various are the ways to change the state  
Of plants, to bud, to graft, to inoculate.  
For, where the tender rinds of trees disclose  
Their shooting germs, a swelling knot there grows:  
Just in that space a narrow slit we make,  
Then other buds from bearing trees we take;  
Inserted thus, the wounded rind we close,  
In whose moist womb th' admitted infant grows.  
But, when the smoother bole from knots is free,  
We make a deep incision in the tree,  
And in the solid wood the slip inclose;  
The batt'ning bastard shoots again and grows;  
And in short space the laden boughs arise,  
With happy fruit advancing to the skies.  
The mother plant admires the leaves unknown  
Of alien trees, and apples not her own.

\* \* \* \* \*  
I teach the next the differ'ng soils to know,  
The light for vines, the heavier for the plow.  
Choose first a place for such a purpose fit;  
Then dig the solid earth, and sink a pit;  
Next fill the hole with its own earth again,  
And trample with thy feet, and tread it in:  
Then, if it rise not to the former height  
Of superfiice, conclude that soil is light,  
A proper ground for pasturage and vines.  
But if the sullen earth, so press'd repines  
Within its native mansion to retire,  
And stays without, a heap of heavy mire,  
'Tis good for arable, a glebe that asks  
Tough teams of oxen, and laborious tasks.

\* \* \* \* \*  
The fatter earth by handling we may find,  
With ease distinguished from the meagre kind;  
Poor soil will crumble into dust; the rich  
Will to the fingers cleave like clammy pitch.

\* \* \* \* \*  
Fat, crumbling earth is fitter for the plow,  
Putrid and loose above, and black below;  
For plowing is an imitative toil  
Resembling nature in an easy soil.  
No land for seed like this; no fields afford  
So large an income to the village lord;  
No toiling teams from harvest-labor come  
So late at night, so heavy-laden home.

\* \* \* \* \*  
Happy the man, who, studying Nature's laws,  
Through known effects can trace the secret cause—  
His mind possessing in a quiet state,  
Fearless of Fortune, and resign'd to Fate!  
And happy, too, is he who decks the bow'rs  
Of Silvans, and adores the rural pow'rs—  
Whose mind, unmov'd, the bribes of courts can see,  
Their glittering baits and purple slavery,—  
Nor hopes the people's praise, nor fears their frown,  
Nor when contending kindred tear the crown,  
Will set up one, or pull another down,  
Without concern he hears, but hears from far,  
Of tumults, and descents, and distant war;  
Nor with a superstitious fear is awed,  
For what befalls at home, or what abroad.  
Nor envies he the rich their happy store,  
Nor his own peace disturbs with pity for the poor.  
He feeds on fruits, which, of their own accord,  
The willing ground and laden trees afford.

\* \* \* \* \*  
The peasant, innocent of all these ills,  
With crooked plows the fertile fallows tills,  
And the round year with daily labor fills;  
And hence the country markets are supplied:  
Enough remains for household charge beside,  
His wife and tender children to sustain,  
And gratefully to feed his dumb, deserving train.  
Nor cease his labors till the yellow field  
A full return of bearded harvest yield—  
A crop so plenteous, as the land to load,  
O'ercome the crowded barns, and lodge or ricks abroad.

But this article, for one of the kind, is already too long, and yet, only a few fragments of the first two Georgics have been given. A review of the

two remaining poems, upon domestic animals and honey bees, must be postponed until another time—providing the editor thinks it advisable to continue the subject.

Enough has already been quoted to show that the ancients—or one of them at least—and a poet too, understood the farmer's art to a degree of perfection almost equal to the boasted knowledge and wisdom of the present century. And yet the world progresses—in some things slowly, in others rapidly. What the ancients most needed in husbandry was suitable farming implements; in this matter we are greatly their superiors.

S. L. WHITE.

So. Groton, January, 1861.

For the *New England Farmer*.

#### CATTLE MARKET REPORTS.

MR. EDITOR:—You "invite criticism on your cattle reports" for last week, at the Cambridge and Brighton markets. By inviting criticism, I understand you to ask the farmers to express their opinions for or against a more extended and accurate report of the weekly markets than has heretofore been given in the Boston agricultural papers.

You will remember publishing an article more than a year since, that I wrote for the *Farmer*, complaining of the meagre and comparatively worthless reports contained in any New England agricultural paper, when contrasted with the accurate and luminous reports of the New York cattle markets, prepared by the prince of reporters, Solon Robinson, of the *New York Tribune*. That article was published in the *Tribune* as an endorsement of the sentiments it contained. I then referred to the too limited reports hitherto made of our markets, giving no accurate description of the different grades of cattle, and their value, leaving the farmer in ignorance of their value in the stall; so that the drover and butcher might easily take the advantage of him in purchasing. Your report of the market, last week, is a good beginning in a very important and much needed reform.

Your reporter holds a ready and pretty skilful pen, and only needs more practice to enable him to give us accurate reports. The *Tribune* report makes some two or three columns of fine type in that paper, minutely describing 5000 head of cattle, from what State they came, by whom fattened, and by whom taken to market, the expense of freight, to whom sold, with the price per pound, and the per cent. of shrinkage of dead from live weight, &c., enabling any fatter a thousand miles off to estimate the exact value of his bullocks in the stall, and worth to every cattle fatter in the country more than five times the yearly price of the *Tribune*. Yes, go on as you have began, and give us such weekly information of the exact state of the market, as the great interests of our New England stock demands; and depend upon it the publishers and readers of the *N. E. Farmer* will receive a mutual benefit. Brighton market controls to a great extent the price of stock all over New England. The farmers of Princeton fatten, principally in the summer, from 400 to 600 or 700 head of cattle, and though but a small part of them go to Brighton, most of them

being slaughtered at home or sent to Worcester and the adjacent towns, still, the Brighton market controls the price, and we look to the weekly sales there, anxiously, to enable us to fix the honest value of our cattle at home. Yes, we bid you good speed in giving us more extended and valuable accounts of the markets hereafter. I am glad the *Farmer* takes the lead in this reform.

*Princeton, Jan. 25, 1861. J. T. EVERETT.*

REMARKS.—It is our desire to give the best report of the cattle market in our power, and we shall spare no proper efforts to do so. Friend EVERETT will please accept our thanks for his appreciation of them.

**AFRICAN EXPLORATION--COTTON.**

Mr. Petherick, British Consul in the Soudan, who is about to proceed to Africa to explore the source of the Nile, recently delivered an address to the merchants of Liverpool. Consul Petherick has been fifteen years a resident of the interior of Africa; and, under the auspices of the Royal Geographical Society, he is about to commence an expedition from his residence at Khartum in the hope of meeting and assisting Captain Speke, who is starting from Lake Nyanza to explore the yet unknown district lying between there and Kondokoro, and where he hopes to be able to trace the source of the Nile. Mr. Petherick believes that the equatorial region of Africa is drained by a large tributary of the Congo, or some one or other of the large streams that discharge themselves into the South Atlantic Ocean, and the result of establishing the existence of such a stream, he thus comments upon:

"It is to this large and navigable river, in the most central point of Africa, that I look forward to establishing the first fruits of geographical discovery in connection with British commerce. If a channel, such as described, should be proved to lead from the seaboard into the very heart of Central Africa, the whole produce of the country, in addition to ivory, such as oils, seeds, hides, indigo, cotton, gums, India rubber, may be obtained in exchange for our manufacturers. In addition to India rubber, I have also discovered cochineal; and with regard to cotton, they would observe that Dr. Livingstone stated that in his quarter of Africa, he found indigenous cotton growing in the country, without cultivation on the part of the people; they found that the missionaries in Abeokuta, going up the valley of the Niger, observed the same thing, and Mr. Petherick, going up the White Nile from the northward, found the people there growing and manufacturing cotton; and on the gold coast, very large communities of people were engaged in the production of this article. In the quarter which he had visited, he ventured to say that cotton was not only abundant in quantity, but excellent in quality. He found in the country immediately in the interior of Sherboro, that cotton was the great staple article of production; the people there were in the habit of producing and manufacturing it, and the clothes which they manufactured were of precisely the same quality as those which we found, from the accounts of missionaries, up the Niger, and highly valued by the people."

*For the New England Farmer.*

**EXPERIMENTS IN TOP-DRESSING.**

MESSRS. EDITORS:—There is no subject in agriculture deserving of more inquiry, and of greater importance to the farming interests, than the knowledge of the best kind of fertilizers to be used for top-dressing grass lands. As yet but little is actually known by which to arrive at any practical results, for obtaining the largest crop of grass. I have read carefully the remarks and discussions had at the several meetings in the State House on the subject, and as yet am far from the information desired—theories and crude speculations will not enlighten me in the case, and it is only actual experiments and comparison of the several kinds of fertilizers in general use, that can afford the valuable information so much wanted by every farmer. When these experiments are made and clearly explained, they will open to us a knowledge of vast importance. For what crop is there of greater value than the hay crop?—With the present implements now used in husbandry, none can be more easily produced, for the means are within the reach of every one, either by owning or hiring the best mowers, tedders, and other machines necessary for the purpose.

The desire of knowing something more definite and practical on this interesting subject, induced me the last season to institute, in a small way, a series of experiments, in the hope that I might derive some benefit myself and be useful to others. Accordingly, in April last I selected a field best adapted to the purpose, very uniform in the sward, free from shade and other objections—and staked out five several lots each, measuring 250 feet long by 45 feet wide, and top-dressed them with the various fertilizers, as follows:

- No. 1.—2 cords of manure well rotted and mixed with 1½ horse carts of soil.
- No. 2.—12½ bushels leached wood ashes.
- No. 3.—2 cords green cow manure, the droppings of only a few days before.
- No. 4.—80 bushels unleached or dry wood ashes.
- No. 5.—255 lbs. Peruvian Guano, mixed with 1½ horse-carts of brook-mud.

The cost or value of the top-dressing, for each lot, was as near ten dollars as possible. The grass was very carefully cut, and made the first crop in July, the second in September, and accurately weighed, yielding as follows:

|        | First Crop. | Second Crop. | Aggregate.                   |
|--------|-------------|--------------|------------------------------|
| No. 1. | 790 lbs.    | 350 lbs.     | 1170 lbs. ... Compost.       |
| No. 2. | 680 "       | 440 "        | 1120 " ... Leached ashes.    |
| No. 3. | 963 "       | 643 "        | 1600 " ... Green cow manure. |
| No. 4. | 900 "       | 550 "        | 1450 " ... Dry ashes.        |
| No. 5. | 1330 "      | 370 "        | 1670 " ... Peruvian guano.   |
|        | 4630 lbs.   | 2330 lbs.    | 7010 lbs.                    |

You are aware the early spring was very dry, and quite a drought prevailed during the months of April and May. This, no doubt, retarded vegetation, and checked, particularly, the fertilizing qualities of the ashes, as they laid in the sward for a length of time, as dry as when first spread. The copious rains, afterwards, produced a wonderful change in thickening up of the grass. The guano dressing, you will observe, produced much the largest quantity on the first crop, although very little more than the green cow manure with the aggregate of both crops.

The second mowing of the guano lot disappointed me, and its short comings on the second crop, almost conclusively proved that it had lost

much of its fertilizing properties in the production of the first crop of grass. It would not surprise me on the return of the next season, to find the green cow manure lot superior and more reliable than either of the other fertilizers, as a general dressing. Should the return of the next year's mowing result as I anticipate, I may possibly trespass upon your valuable paper at a future day.

RICHARD S. ROGERS.

*Oak Hill, South Danvers, Jan. 25, 1861.*

REMARKS.—We hope Mr. ROGERS will continue his valuable experiments and favor us with the results. They are just what is needed. By continuing them two or three years on the same field, they will go far to settle the question of comparative value between the different fertilizers he has used. We shall be glad to hear from Mr. R. on other topics.

*For the New England Farmer.*

#### JETHRO TULL ON STIRRING THE SOIL.

It is now more than a century since Jethro Tull undertook to show to the agricultural world, that manure was unnecessary in practical husbandry, and that the great desideratum was the *frequent stirring of the soil*. But while he failed in this, he proved that good tillage was very important, though it could not supply the place of manure.

Mr. Tull was an Englishman, and was educated for the law; but his health being poor, he travelled on the continent. After returning, he settled on a small, but poor farm, and while here, his industry and mental activity made him more famous than he probably would have been in his original profession. He experimented and wrote books upon agriculture. Having seen some peasants on the continent frequently scarifying the soil around their grape vines, while using little or no manure, he assumed the hypothesis that good tillage was the only thing needful. A very unreasonable conclusion, indeed, but not more so than many other professional men have had the weakness to adopt at their sudden initiation into agriculture. He not only spoke and wrote against the economy of the use of manure, but he ruthlessly assailed as nauseous all garden vegetables raised in it. This whim, however, has had its counterpart in more modern times; for I well recollect that a member of an erratic Physiological Society in Boston, some dozen years since, placed a basket of potatoes, covered with a wire gauze, on the sidewalk opposite his place of business, labelled, "*Physiological Potatoes, raised without manure!*" So it is that men "play their part in fortune's pageant," and in their persistent pride of opinion, frequently cultivate a moon-lit philosophy, which suddenly disappears in the stronger rays of day.

Mr. Tull used to say that "Plants are earth, and they can't have too much of it." To well comminuted soil everything else was secondary. The truism, that

"All forms that perish other forms supply,"

was so disregarded that he did not see that plants and animal substances, in their decomposition, furnish the only materials for new organizations.

With a certain degree of success, however, he pursued his starving system of tillage for a few years, till at last all the available elements of his soil being exhausted by repeated pulverizations, *he was obliged to resort to manure!* But so stubbornly wedded was he to his theory, and so unwilling to admit the nutritive effect of manure, that he then affirmed that the only benefit from the fertilizers was the mechanical assistance which they rendered to the soil in its development of vegetable pabulum! In other words, that the manure simply assisted in the further divisions of the earth, without adding anything of value. Mr. Tull died in 1740.

Whether the pulverizing system, if true, would be economical, would depend upon the amount of tillage it demanded. But as it is of only secondary importance, it is not worth while to calculate it. Undoubtedly, the frequent stirring of the soil makes it a more ready receptacle of the gases, rains and dews, and these afford positive nutriment. Besides this, the more a soil is pulverized, the more readily it parts with the important elements it may contain—whether organic or inorganic—the more it will nourish plants, but the sooner, of course, it will become exhausted of what it possesses. And to prevent this barrenness, manure is the obvious remedy.

*West Medford, Jan., 1861.*

D. W. L.

*For the New England Farmer.*

#### WINTERING BEES.

In the *Farmer* of Jan. 12th, is an article on wintering bees, that indicates that the writer has had considerable experience and observation.—The bee-keeper who winters his bees in the open air, would do well to heed his advice. There is one point, however, in which he is mistaken, that I would correct. He says that "Quinby and Langstroth state that they have wintered swarms on four, five and six pounds of honey." In this he must be mistaken, as far as I am concerned. I really would not dare to advance any such idea. In fact I do not believe that an ordinary sized colony could be wintered on that amount. I have weighed a great many hives, and the least honey that a colony has consumed in six months, from Oct. to April was fourteen pounds. I have had others, at the same time, that consumed 17, 18 and one even 21 pounds. They will average about 18. If the spring is unfavorable, a good, large colony will consume, from the first of April till they get a full supply from clover, as much more, provided it is on hand—probably used in rearing brood; with but little honey, less brood is reared.

I am satisfied that bees consume less honey when wintered in the house, than in the open air. But in no case would I recommend risking a stock with much less than 25 lbs. of stores, unless they could receive attention in the spring, and be fed if necessary.

M. QUINBY.

*St. Johnsville, N. Y.*

NEW FRUITS.—Among the new fruits we find noticed in several of our exchanges are Moore's Pear, which *Hovey's Magazine* notices as one of the most valuable of all varieties—larger than the Doyenne Boussock.

## A WINTER AGRICULTURAL VISIT.



A Good Company—Deep Snows—  
—A Sign Out—Apple Crop—  
Large Stock of Cattle—Fine  
Ayrshire Cows and Heifers—  
Cut Fodder—Steaming Food—  
Milk Business—Chat at the  
Dinner-Table, and a new pow-  
er in agricultural pursuits.

LAST WEEK we had the pleasure of making a winter agricultural visit to the farm of H. H. PETERS, Esq., in Southboro'. Mr. P. had a thorough training on the farm in his youth, and a love for the calling, which no blandishments of the counting-house or commercial enterprise could

ever eradicate. Influenced, however, by a desire to see a little more of the world, and to indulge the feelings of romance so common to our young men, he went to California, and amid the varied turnings of fortune's wheel, came out at the "top of the heap," with his "pockets full of rocks;" and then, like a sensible man, came back to his native New England, and to the cultivation of the soil. His farm consists of about three hundred acres, of moist, granitic soil, made up of hill and vale, giving him such a variety in texture and position, as to enable him to cultivate successfully most of the crops common in Massachusetts.

We were accompanied by Mr. GEORGE M. BARRETT, who usually winters from fifty to seventy-five head of cattle, and who is well known by cattle dealers as a breeder of fine Ayrshire stock; by ELIJAH WOOD, Jr., a gentleman who is managing, *with a decided profit*, some six hundred acres of land, and who had at one time last winter ninety-nine head of cattle in the lean-tos. Our third companion was Dr. JOSEPH REYNOLDS, a physician and chemist, a gentleman imbued with a deep love for farming, and who tills his few acres skillfully and profitably. The writer finished out the quartette, and it may not be vanity to say, that, with this aggregation of a practical knowledge of farming, scientific attainment and long and scrutinizing observation, it was a company abundantly capable of examining and criticising what our host had to present.

Snow drifts impeded our progress somewhat, as we were obliged to travel occasionally on a level with the tops of the stone walls. Approaching within a mile of the pleasant village of Southboro', we saw a *sign* of the farm we were looking for; not a sign which indicated that a tavern was near, as in the halcyon days of stages and six miles an hour, but a sign set in the ground, a

sign of thrift and progress, in the shape of *six acres* set to dwarf and standard pears. The crop for the last season we did not think to inquire for. We observed two or three fine young orchards, and many old trees that had been worked over. His crop of apples last fall was but a little less than a thousand barrels.

In his stalls we found about seventy-five head of cattle and three or four horses. Twenty-five head of the cattle were mixed bloods, and presented nothing of special importance. In another portion of the barn were some twenty-five or thirty full blood Ayrshire cows and heifers that were worth a much longer journey than we had made to see. Several of them were very beautiful, and one, a seven year old cow, a model. We have seen nothing more beautiful in color, countenance or symmetry,—and we were informed that she was excellent in her productive qualities, though equalled in this respect by some others of the herd. In another barn we saw some twenty or thirty calves—yearlings next spring—all full blood, and most of them promising great excellence. They were of good size, their countenances were bright, appetites keen, their skin loose and soft to the touch, and their hair silky and glossy. They promise well for the future dairies of New England. Near them were two Ayrshire bulls, one a three and the other a two-year old. The former was, especially, of extraordinary beauty. Many of these Ayrshire cattle were imported by Mr. PETERS, and the others are their progeny.

All these cattle are kept upon cut fodder, steamed, a little meal of some kind being mixed with it. The fodder used includes hay, corn stover, oat, barley and wheat straw and chaff. This is placed in a large, tight box, made of chestnut plank; the cut feed is thrown into it in layers—the meal sprinkled upon it and steam admitted. This is done, if we understood him correctly, twice each day, so that the food remains in the cooking process about twelve hours. It comes out of the boxes thoroughly moistened, soft, a little pasty, and with the odor of a batch of newly-drawn brown bread; this is fed to the cattle three times each day, and in addition, small supplies of roots, at an expense, Mr. PETERS says, of *fifteen* cents per day. It was the opinion of two of the party, at least, that, under a perfected system of steaming, the cost may be considerably less than this sum. Under this treatment, the cattle were in excellent condition, and the cows were yielding a large amount of milk. Something of this, however, must be owing to the neatness and regularity which pervaded everything—as the more comfortable and contented cattle are made, the more will they produce upon a given quantity of food.

Mr. PETERS does not convert his milk into butter and cheese, but sells it at the door. In this *winter* visit, we were not able to look at the fields, pastures, banks of discount in the swamps, orchards, or drainage, but have those in anticipation for a future day. We saw enough, however, to convince us that a strong and systematic mind was engaged in the operations of the farm, and that the introduction of a breed of cattle so well established in good qualities, and so many examples of progress and thrift in feeding, in implements, machinery and general management, must have an important influence upon all who are so fortunate as to see them.

At the outset of this article, we spoke of a *new* power in agricultural pursuits. This was exhibited at the dinner-table, where a long, interesting and *profitable* discussion took place upon matters entirely pertaining to the farm, and in which our hostess engaged with an intelligent zeal that proved how closely she sympathized with her husband in his business. This is the *new* power to which we adverted, and one which is to work as many changes as all other powers beside, excepting only that of man himself. When the wives and daughters of farmers feel that their calling is no less honorable than that of merchants or kings, acquaint themselves with the principles involved in it, and sympathize and sustain those who honor it, then will the farmer spring to that position which all nature points that he should occupy!

We commend similar visits to our brethren; they will break up the monotony of every-day affairs, introduce implements, machinery and new modes of practice, and above all, that spirit, or enthusiasm, that the French call *esprit de corps*, which animates us to better deeds.

For the *New England Farmer*.

#### FERTILIZERS.

ARE FOREIGN OR EXTRANEOUS FERTILIZERS NECESSARY TO PREVENT N. E. FARMS FROM DEPLETION?

In your last monthly *Farmer* you briefly notice the dissertation of the Hon. Thomas G. Clemson on Fertilizers. He says, "Farm as you may upon the majority of soils, without the use of extraneous fertilizers, your crops will certainly diminish, until total impoverishment shall leave no alternative than starvation or emigration." Such statements, it appears to me, are not only groundless, but calculated, so far as they are believed, to injure the farming community.

My own experience on four different farms, and my observation of the experience of others, has satisfied me, that, with strict economy in saving manures, and good judgment in applying them, there are few farms the produce of which, instead of being diminished, might not be doubled in ten years, without the use of any extraneous fertilizers. I know that many of our prominent farmers have expressed the same opinion as Mr.

Clemson, and consequently have expended large sums of money for guano, superphosphate, &c., and their wonderful effects upon vegetation, as often reported, have led many, to their sorrow, to follow their example.

I do not wish to be understood to condemn concentrated manures altogether; perhaps, where you have a field, difficult of access with heavy manures, if you obtain a good article, it may pay. But farmers in this vicinity begin to find out, or at least suspect, that many of those fertilizers are as easily "extended" as Burnham's rum, and it is my opinion that we can do without them, and suffer no permanent injury to our farms either.

Providence has kindly provided, on almost every farm, abundant materials for increasing their fertility; and I believe you will sustain me when I say, that there is not to be found in Massachusetts an intelligent and enterprising farmer, who saves and judiciously applies the resources of his own farm, whose acres are not from year to year growing richer and more productive.

Westboro', Jan. 12, 1861.

R. M.

REMARKS.—We entirely agree with the remarks of our correspondent above. In collecting matter for the *Farmer*, we endeavor to make it a *newspaper* in an agricultural direction, and with this view we sometimes quote the sayings of others, though they may be opposed to our own opinions. We remarked that "the picture he (Mr. Clemson) drew of the future of our agriculture was gloomy."

For the *New England Farmer*.

#### FACTS ABOUT CLIMATE.

MR. EDITOR:—I have been for some time an attentive reader of your valuable paper, and take a great interest in its agricultural and scientific discussions. In reading the *Farmer* of Dec. 15th, 1860, my attention was drawn to an article headed, "Some Remarkable Facts in Relation to Climate," in which it is stated that, "In the northern hemisphere of the globe all the eastern coasts of continents and isolated masses of land are colder than the western coasts of the same latitude." Thousands of observations have confirmed this phenomenon, although its explanation is not quite yet found out.

I will endeavor to give what I consider to be a correct explanation of the facts there given. Why are western coasts of continents and islands warmer than the eastern coasts of the same latitude? In order to answer this question satisfactorily, we must find the source of this extra heat. It cannot come directly from the sun, or any other body external to the earth. For in that case, places of the same latitude would receive like portions of heat. We must, therefore, look for this source of heat within the limits of our own atmosphere. It is well known that the vapor of water contains a large amount of latent heat which is given out when the vapor is condensed into mists and clouds.

Now the prevailing winds of the northern hemisphere, especially in the winter, are from the west or north-west. These winds, in passing over the ocean, and other bodies of water, absorb large



quantities of heat and moisture. And in rising up over the western coasts of continents and islands, the watery vapor which they contain is condensed into mists and clouds, and a part of its latent heat becomes sensible, making the climate warm and humid. But when these winds have passed the highest point of the continent or island, they have lost a great part of their heat and moisture, and in descending the eastern side of the continent or island they expand and absorb both heat and moisture, which tends to make the climate cold and dry. In this way, the west winds warm the western side of the continent, and cool the eastern side. It is stated that in the southern hemisphere the difference of climate between the eastern and western coasts of continents and islands is decreased, the eastern coasts being warmer than the western.

But the prevailing winds of the southern hemisphere are from the east and south-east, consequently they warm the eastern coasts, and cool the western coasts. While the coasts are warmed in the winter by the condensation of watery vapors contained in the atmosphere, and by the reflection of heat from the clouds, and cooled in summer by the large quantity of rain which falls, carrying off a great part of the heat through the rivers to the ocean, (to be absorbed and brought back again in the winter by the winds,) and by thick masses of cloud which overspread the sky a considerable portion of the time, preventing the rays of the sun from over heating the ground, the interior, especially places protected from the prevailing winds by ranges of mountains, or other high tracts of land, (unless separated from these by large lakes or inland seas,) has a dry atmosphere, and is scorched in the summer by the unobstructed rays of the sun, and frozen by excessive radiation in the winter.

ABNER L. BUTTERFIELD.

West Dummerston, Vt., 1861.

#### THE LARGE OX.

John Sanderson of Bernardston, Mass., is the owner, grower and feeder of one of the largest, fattest and most perfect animals of the cattle kind ever seen in Massachusetts. Taller and more bony oxen may have been, but none better made and developed of corresponding weight. He girts  $10\frac{1}{2}$  feet, is five feet 8 inches high, is  $9\frac{1}{2}$  feet from the centre of the head between the horns, to the roots of the tail, is 3 feet 5 inches across the hips, is  $3\frac{1}{2}$  feet thick from point to point of shoulder, is 4 feet in his greatest thickness forward of the hips, is  $7\frac{3}{4}$  feet from rump to point of shoulder, and is 10 inches around the fore leg above the ankle. Standing in a natural position,  $3\frac{1}{2}$  feet was measured from outside to outside of track of fore feet. He has not lately been brought to the scales, owing to the inconvenience of getting about, but his weight is adjudged about 3,500 pounds. The history of this grade Durham giant is briefly this:—He fared well when a calf, and we rather think sucked a free milker; was worked till he was  $3\frac{1}{2}$  years old, had common pasture one year after, and has been fed in a barn ever since. He was seven years old last March. His daily grain feed at present is 12 quarts, half oats and half corn ground together.—*Springfield Republican*.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER BY THOMAS BRADLEY.]

The fifth meeting of this Society was held in the Representatives' Hall on Monday evening, when the audience completely filled the place, rendering it necessary to open the galleries to accommodate the crowd, a large proportion being ladies. A number of specimens of flax cotton, or fibrilia, as it is called, together with goods manufactured from it, and the model of a machine for breaking the straw from the field, were on exhibition, and were examined with much interest by those present, among whom were a number of extensive manufacturers of cotton and woollen goods.

Mr. FREEMAN WALKER, of North Brookfield, called the meeting to order, and introduced Mr. S. M. ALLEN, as the Chairman of the evening. Having announced the subject for discussion, "*Flax—to be cultivated in the North as a substitute for cotton,*" Mr. Allen addressed the meeting as follows:

By our own individual experience, as well as from universal history, we learn that agriculture has ever been the great foundation stone of national prosperity. She is the parent of manufactures, and the grandparent of commerce. When this great family acts in harmony with the natural law, the ship of state glides smoothly on, laden with fruitful blessings, and bestowing them liberally to needy humanity,—but when either member becomes reckless, and wanders from the prescribed path, and sets up its own supremacy, the equilibrium becomes destroyed, and death and decay are inevitable. Nations have risen to thrive under the proper use of the many blessings which these three institutions vouchsafe to humanity, but have fallen under the misuse of them never to rise again. The farms of the United States are the great reservoirs from which we derive our bread and meat, and the farm-houses are the nurseries for recuperating the physical and mental energies of metropolitan life.

The agricultural resources of any country must, of necessity, be versatile, as neither the soil or climate can be the same. The geological formations were originally different, and the influences of cultivation remove them still further apart; while the climate in different latitudes will produce a different plant in the same soil, and the humidity of the atmosphere, and the electrical and magnetic influences pervading it will produce a different plant in the same latitude. These influences are changing every hour, through the whole country, under the use of the plow, the hoe and the axe, which level the forests and open the soil to use and profit.

The treatment of lands, the seed sown, and the

crops produced, must of necessity be as different as the soil and climate. A crop suitable for the Berkshire Hills would not be the most profitable for the lands of Essex county; neither would soil at the same altitude on Mount Katahdin, in Maine, produce the same crop as would the Green Mountains in Vermont. The same rule applies to the raising of stock upon the farm, and the food they eat. The dray horse in Boston could not perform the same amount of labor as the one used on the sides of the Monadnock, if he had only the same food to eat, neither will two cows give the same amount of milk, or fatten alike, fed upon the same food in the different localities of Barnstable and Berkshire.

All the elements of nature are constantly changing, and thus produce different results in different localities, and at different periods.

Vegetation changes, also, and often the tropical plant may be acclimated to northern or northern temperate zones. Many plants, like that of cotton, have been confined to certain latitudes for a perfect growth, for centuries, with but little change, but *Flax*, the subject of our discussion this evening, is of extended growth, and from its fibre the same result, or a better, is produced, so that nature seems harmonious in her laws, after all, and is not always partial in the distribution of her bounties.

Flax is of almost universal growth over the whole earth, and from the earliest authentic history we find its fibre in use for clothing and its seed for oil. Egypt, Rome and Britain used it for linen, which for thousands of years was the principal covering of the people, and the American colonies followed the mother land in her preference for its wear, and cultivated the plant among their first, most useful products. Up to about 1750, it was used principally clear, but from that time cotton filling was introduced, and a mixed goods produced which became the staple of commerce of the times. When the improvements in the cotton machinery were brought out by *Face*, *Arkwright* and *Hargreaves*, in 1767, cotton came more into general use, and flax and linen, for ordinary uses, began to fall in the rear, and for the last century it has been a secondary product both in Europe and America. The great demand for Cotton, and its almost exclusive growth in limited sections of the world, has, at various periods of time, enlisted great efforts for flax, to make it a substitute for cotton, but most of them failed from the fact that the operators mistook the anatomical character of the fibre and the cementing compound which held them together on the stalk of the plant.

The old method of working flax was in long line, using the filaments and fibres in a united thread, without reducing them down to the ulti-

mate fibril, either in length or size, and using in their manufacture machinery peculiarly adapted for the purpose, and differing materially from that used for manufacturing either cotton or wool. The mode of preparing the fibre was also peculiar, the same being subjected while in the straw to a fermenting or rotting process, which tended to set the gluten and albumen, and, when followed by boiling in alkalies, rendered the fibres harsh and brittle, and hard to spin, making the whole process of manufacturing linen more expensive than that used for cotton or wool. This form of manufacture for linen is now practiced in Europe. The process of making fibrilia, as well as yarns and cloth, from the same, is entirely different from any thing ever before used, and a corresponding result is produced. The albumen, gluten, and other substances which pervade the filaments and fibres on the original stalk, and which cement them together, are dissolved and removed by simple solving processes, and the fibrils are separated to their original length, of from one to two inches, by a review of the solving process with a simple mechanical one which fits the fibrils for spinning on either cotton or woolen machinery, and which makes it resemble those fibres both in color and whiteness and length of staple. The old processes of working flax would entirely fail in working fibrilia, which can be prepared from either flax or hemp, and in fact, many other fibrous substances.

We are thus able to lay before you specimens of fibrilia made from flax, which resemble cotton and wool, and which can be used to great advantage with either of these fibres. Fibrilia spins like cotton, either alone or mixed, makes a stronger and better yarn or cloth, and can be produced cheaper than cotton and can either be raised or manufactured in New England in large or small quantities, at a profit both to the farmer and manufacturer.

Flax can be readily raised either in the West or East for the value of the seed alone, the fibre being profit. At the present time, there are hundreds of thousands of tons of flax annually raised in the West simply for the seed, and the fibre is thrown away. The soil of New England is well adapted to the culture of flax, and besides the crop of seed and fibre which may be saved, there is a valuable food from the breaking of the unrotted straw which is rich in nutritious substances, and which affords more than one-half of every ton of straw as valuable food for cattle.

If the eastern and north-western States were to set aside one-quarter of their tillable lands for flax for fibrilia, the product would be over 16,000,000 bales of 500 lbs. each, which would be worth more than a billion of dollars. If Massachusetts should raise and manufacture her own

cotton or fibrilia for twenty-five years, it would double her whole State valuation of 1860.

Dr. WINSLOW, of Boston, said he had had his attention called by the chair to two points—the practicability of raising flax to a profit, and its effect on the great staple of the Southern States. Speaking of the manufactures of flax, he said the great object was to work it on cotton and woollen machinery; the difficulty has been its long staple, the thread being bound in the stem of the plant as a bunch of rods; but now an excellent machine is invented to break the stem, after which the fibrilia can be mixed with cotton or wool, and spun and woven with either. He then spoke of the opinion given by Dr. Hayes, of Boston, that the short staple flax could be bleached and colored just as easily as either cotton or wool. He closed his remarks by saying that Massachusetts mind and Massachusetts invention had been in a great measure the cause of the present jealousy on the part of the South towards the North.

F. W. TAPPAN, of New York, being called on, said the flax cotton could be produced, as it was exhibited to the meeting, for two-thirds of the price of cotton. He said the flax in the West was mowed with mowing machines, and thus was harvested cheaper than any other grain crop. The idea that you can get a crop of flax only once in seven years is now obsolete, and flax is considered a good preparatory crop for wheat. Flax is bought in the West to be delivered in Boston for 4½ cts. per lb., and this flax has been cottonized here and sent back and sold where it was grown for 15 cts. In Western New York and Ohio, in the farming districts, the flax is raised for the seed alone, there being no market for the straw, and this is often used to fill up holes in the roads to get it out of the way.

Mr. ALLEN, the Chairman, said that good land will produce two tons of straw to the acre; from this five bushels of seed can be got worth \$1,50 per bushel, and if the straw is broken on the ground, 300 or 400 lbs. of fibrilia ready for the spindle can be obtained, leaving 25,000 lbs. of stalks, which will be more nourishing for cattle than the same amount of hay. He said that from a quarter of the cultivated lands of the North, flax enough could be raised to more than four times equal the cotton crop of the South.

E. HASKETT DERBY, of Boston, next spoke, and said he had travelled much in the South, and that the cotton there cost from five to six cents to raise, without the profit of the planter. He alluded to the idea prevailing there that cotton is a regal product, and by it they controlled the commerce of the world. To show the fallacy of this, he spoke of the products of India, where more cotton was raised than in the whole South, as al-

so that that country raised over 700,000 bushels of flax seed, besides indigo and almost everything else. He said that, from actual observation, he knew that the product of South Carolina, on old lands, was only 100 lbs. of cotton to an acre, while with the plentiful use of guano and other fertilizers, on the best lands, they could not raise over 300 or 400 lbs., and the entire State did not average more than from 100 to 200 lbs., to the acre. The wild flax, said he, is indigenous to Oregon and California, as also in other portions of our country, and reckoning the yield of wheat at 20 bushels to the acre, with the extra cost of harvesting, that a person raising flax would be a clear gainer of the value of the lint. He concluded by speaking of the disposition of slavery to move southward, two-thirds of the slaves now being south of the Carolina line, and that the extensive cultivation of flax as a substitute for cotton would be the true method of ameliorating the condition of the negro.

RICHARD S. FAY, of Boston, said flax culture was no new thing in Massachusetts, and if he thought it could be grown to advantage no one would give it more attention than he would, but he thought it could not. He was engaged in manufacturing, and came to the meeting to obtain information as to the cost of growing flax, and the best manner of doing so, and not to discuss the question of slavery. He had found, in his experience, that both cotton and wool had a serrated edge, and when wound together, would hold firmly, whereas flax was round, or tubular, and could not be made to unite with either cotton or wool. His opinion was, that a ton of flax could not be produced at a profit in Massachusetts, and he desired to know how much it would cost to grow an acre of ground in flax, and how much flax you could get. He was of opinion that if a man had a farm of 50 acres, and grew 5 acres in flax each year, for 10 years, he would be ruined at the end of that time. He spoke of the great labor required to cultivate flax, and warned farmers not to be induced to turn their land to flax with the expectation of making large profits.

The Chairman said that he could not give the cost of cultivating flax in any particular locality, as the land and climate made all the difference, but he did know that their agents in the West could engage all they wanted for 4½ cents per pound delivered here. Speaking of cotton, he said that in bleaching it becomes serrated, while wool was tubular, and had rings as it were around the tube; flax is tubular, and in long line spinning is smooth, while if broken in the Randall machine by the solving process, the tubes become flat at the ends, and thus will unite easily with either cotton or wool on the common cotton or woollen machinery.

Mr. NICHOLSON, of Cambridge, being called on, exhibited samples of flax, explaining the various processes, from the straw to the printed cloth. He said the flax retained the color of the dye much better than cotton, and as well as wool.

Being asked how much fibrilia the manufactory in Roxbury had made, he said that they had made 400 lbs. of fine per day, but as they were enlarging their works, they were not making any now.

Mr. RANDALL, of Rhode Island, the inventor of the machine for breaking the stalk, gave an interesting account of his experiments in spinning flax on cotton machinery, from 1850 to the present time.

In answer to an inquiry by Mr. Walker, of North Brookfield, Mr. Tappan said that from 10,000 to 11,000 lbs. of fibrilia had been made in Roxbury.

It was then announced that the subject for discussion at the next meeting would be—“*Sheep husbandry—Its advantages compared with other branches of agriculture in Massachusetts,*” and that Sanford Howard, editor of the *Cultivator*, would preside. The meeting adjourned.

*For the New England Farmer.*

#### NEW ENGLAND WHEAT.

MR. EDITOR:—In the early days of New England, and for a long series of years, wheat was extensively cultivated, and the crops were very abundant. All the inhabitants, with few exceptions, raised their own wheat. The few who were unable to raise their own wheat, purchased of their neighbors, by exchanging their labor for wheat; so that all were well and cheaply supplied from the soil of New England.

But our fathers, though wise beyond the common herd of mankind, did not know everything, any more than we do. They never imagined that a time would come in which they or their descendants would not be able to raise wheat enough to supply all the inhabitants of New England. They believed and acted upon the principle that “To-morrow shall be as this day, and much more abundant.” They continued, year after year, for a great length of time, to raise wheat from the same pieces of land, with a continually decreasing crop every succeeding year, till the land would produce no longer. So they concluded, finally, that the soil was exhausted, or run out, and they abandoned the cultivation of wheat entirely.

From that day to this, that is, for the last fifty or sixty years, but little wheat has been raised in New England, from the mistaken idea that it cannot be successfully and profitably cultivated here. Though the quantity of wheat consumed here has been, and still is, enormous, yet we continue to look to the great States of the West for the supply of our wheat and flour, and for most of our other kinds of grain. “These things ought not so to be.” We have a soil naturally hard to subdue and cultivate, but when properly subdued and cultivated, it is sufficiently exuberant and productive to supply all our inhabitants with wheat, and with all other kinds of grain. It is,

therefore, a great mistake to think that we cannot raise our own supply of wheat. We can do it, if we only know how, and exercise the perseverance and skill.

A few years since, in order to encourage the cultivation of wheat, the State of Massachusetts offered a bounty upon the best crops of wheat, which, if it had no other effect, went to prove that it could be successfully and profitably cultivated here; nay, more, that it was more profitable than any other kind of small grain. Perhaps no private individual has said and done more to encourage its cultivation than your old friend and correspondent, Mr. Henry Poor, of Brooklyn, N. Y., who has ever manifested a very lively interest in this business, and who, some time during the past year, requested your correspondents to report the results of their efforts in the cultivation of wheat.

We do not raise any winter wheat in this town, for this plain reason, because we do not try. We raise considerable spring wheat, and when we take pains to cultivate it properly, we have very good crops. We might, perhaps, by taking the like pains, succeed equally well with winter wheat. But as we have been in the habit of seeding down our lands to grass in the spring, we do it upon spring wheat, because we consider wheat as the most profitable of all the small grains, and as the best to seed upon.

The following is a true but imperfect account of the crop of wheat I raised the last year. The land on which it grew is a deep, rich, vegetable loam, very tenacious, and slightly inclining to the south-east. The seed used was the Michigan wheat, a very large, round, plump berry. And the product was a little more than thirty-two bushels to the acre. The land was cultivated in the following manner: When it was first broke up, it was plowed very deep, and the sod completely turned over. It was then harrowed lengthwise on the furrows, furrowed out and planted to potatoes. No manure was applied except ashes and plaster. The product was very great. The second year I plowed in at the rate of forty loads of stable manure to the acre, and planted with corn on the 7th day of May. The corn was the most perfect I ever saw, and with it I furnished a large number of the inhabitants with seed corn the following year. The third year, on the 1st day of May, I plowed and harrowed my land, sowed my wheat and harrowed it in, then sowed my grass seed and bushed it in. The only application I made to the land was a considerable quantity of air-slacked lime. The result I have given above. The seed wheat was thoroughly cleansed from foul seed by washing. It was then soaked in salt brine for about twelve hours, and sowed at the rate of two bushels to the acre.

JOHN GOLDSBURY.

*Warwick, January, 1861.*

AMERICAN POMOLOGICAL SOCIETY.—We have before us, through the polite attentions of Hon. MARSHALL P. WILDER, the Proceedings of the Eighth Session of the American Pomological Society, held in Philadelphia, Sept. 11th, 12th and 13th, 1860. The first paper is the address of the President, Col. WILDER, liberal extracts from

which we gave soon after the meeting. The discussions which followed the reading of the Treasurer's report, were upon apples, currants, strawberries, raspberries, blackberries, gooseberries, grapes, pears, and pears on quince stocks. These were followed by discussions on the culture and diseases of the grape, and culture of the pear. Reports were read from Committees and from the States.

The pamphlet is from the press of Benton & Andrews, Rochester, N. Y., and is a credit to their skill in the art.

*For the New England Farmer.*

**GETTING IN GRASS SEED---SOMETHING TO MANURE WITH.**

MR. EDITOR:—There are one or two things that I would like to call your attention to, that is, to say a word in addition to your remarks in the *Farmer* of Jan. 19.

In "getting in grass seed," I have practiced for several years to wet the grain that I was going to sow, and mix the grass seed thoroughly with it, by putting the grain and grass seed in a tub convenient for the purpose and stirring well. The grass seed will adhere to the grain, and will go where that does, and a little practice will enable the operator to sow the grain as conveniently as if unwet. This method will save the expense of a machine, and any one that does not have one, once trying the method I have described, will not spend the time to go over his ground a second time, to sow his grass seed, when he can get it so much easier applied in this manner.

I have also found a slab from a saw log better than brush, to give the last finish to seeded land, and better than the roller on heavy land, as it pulverizes the lumps, giving the surface a smooth, fine tilth, without packing it.

My method is to take a large slab, a foot wide or more, about 9 feet in length, with a 2 inch auger hole at about 2 feet from each end, into which I fasten two small chains, and bring them together in the form of a triangle; these are attached to the whiffletree, and drawn by a horse, with the convex side down. A weight of any desired heft can be attached to the top, or the operator or teamster can ride on the slab, where the surface is not too unequal or stony. I will suppose that the land has been fitted for the mower, and then this is just the thing to "put on the finish."

As regards "something to manure with in the hill," you recommend to keep the droppings of the roosts of fowls dry, and use half a pint in a hill. Perhaps the muck and plaster would remedy the evil I have in mind. It has been my experience, and others of my acquaintance, that the manure of fowls should be wet with soap suds, or something else, before using; as its dry nature attracts all the moisture from the seed, preventing its germination. E. S. ALLEN.

*Jacksonville, Vt., Jan., 1861.*

REMARKS.—Capital. This idea of the use of the slab is entirely new to us. If we live long enough, we shall certainly put it in operation.

*For the New England Farmer.*

**POULTRY RAISING.**

I see in your valuable book, you often publish an account of poultry and their doings. Below is a correct account, Dr. and Cr., for the year 1860. If you think it will be any benefit to farmers, or to poultry-raisers, you can make what use of it you think best.

I have 4 old ducks which have averaged 3 eggs per day since the middle of December. Is that not uncommon, after laying through the summer?

**STOCK OF POULTRY FROM JAN. 1, 1860, TO JAN. 1, 1861.**

|   |         |
|---|---------|
| Jan. 1, 25 fowls and 6 ducks, at 50c each.....            | \$15.50 |
| "    8 chickens 1 month old.....                          | 80      |
| "    corn and oats, \$3.10, chicken died, 12c.....        | 2.22    |
| Feb. and March, corn and oats.....                        | 6.00    |
| April, corn and barley, \$3.75, 4 hens died, \$2.....     | 5.75    |
| May, corn and barley, \$3.70, 1 hen died, 50c.....        | 4.20    |
| June, corn and oats, \$2.70, meal and shorts, \$3.55..... | 6.25    |
| July, corn and oats, \$5.10, scraps, \$3.....             | 8.10    |
| August, corn and oats.....                                | 4.55    |
| Sept., corn and oats, \$5, 2 chickens died, 75c.....      | 5.75    |
| Oct., corn and oats.....                                  | 3.60    |
| Nov., corn and oats.....                                  | 5.15    |
| "    bought 6 geese, at 75c each.....                     | 4.50    |
| Dec., corn and oats.....                                  | 2.55    |
| "    3 Geese stolen before Christmas.....                 | 3.50    |
|   | \$79.72 |
| Interest on value of stock.....                           | 1.00    |
|   | \$80.72 |

**JANUARY 1, 1861—STOCK ON HAND.**

|                                     |         |
|-------------------------------------|---------|
| 29 Fowls, at 50c.....               | \$14.50 |
| 12 Ducks, at 50c.....               | 6.00    |
|                                     | 20.50   |
| Value of stock January 1, 1860..... | 16.50   |
|                                     | \$4.20  |

**INCREASE.**

|  |          |
|--|----------|
| Jan. 1, 10 doz. and 4 eggs, at 28c, \$5.42, ducks sold, 50c..... | 5.92     |
| Feb., 30 doz., at 27c, \$8.10, 1 doz. and 1 D. eggs, at 32c..... | 8.42     |
| March, 28 doz. and 7, at 22c, \$6.30, 2 hens sold, \$1.....      | 7.30     |
| "    2 doz. and 11 D. eggs, at 24c.....                          | 70       |
| April, 14 1/2 doz., at 20c, \$2.90, 4 chickens sold, \$1.60..... | 4.50     |
| "    5 doz. D. eggs, at 25c, \$1.25, 2 barrels manure, \$2.....  | 3.25     |
| May, 19 doz. and 2 eggs, at 29c.....                             | 3.83     |
| "    5 doz. and 5 D. eggs, at 25c.....                           | 1.36     |
| June, 19 doz. at 20c, \$3.80, 9 chickens sold, \$3.75.....       | 7.55     |
| "    4 doz. and 3 D. eggs, at 24c.....                           | 1.02     |
| July, 17 doz. and 8 eggs, at 20c.....                            | 3.43     |
| "    2 doz. and 7 D. eggs, 52c, 16 chickens sold, \$6.....       | 6.52     |
| Aug., 8 doz. and 9 at 29c, \$1.75, 2 barrels manure, \$2.....    | 3.75     |
| "    1 doz. D. eggs, 26c, 10 hens sold, \$5.....                 | 5.26     |
| "    21 chickens, \$9.87, 1 duck, 80.....                        | 10.67    |
| Sept., 8 doz. at 20c, \$1.60, 1 doz. and 9 D. eggs, 35c.....     | 1.95     |
| "    7 chickens, \$3.62, 8 ducks, \$5.50.....                    | 8.12     |
| Oct., 6 doz. and 3 eggs, at 24c, \$1.50, 3 bbls. manure \$3..... | 4.50     |
| "    1 doz. and 7 D. eggs, 35c, 5 hens sold, \$2.....            | 2.38     |
| "    12 chickens, \$4.03, 11 ducks, \$8.....                     | 12.03    |
| Nov., 12 1/2 doz. eggs, at 28c.....                              | 3.12     |
| "    2 doz. and 10 D. eggs, 70c, 2 barrels manure, \$2.....      | 2.70     |
| "    15 ducks sold.....  | 10.27    |
| Dec., 20 doz. and 1 eggs, at 25c, \$5.02, manure, \$2.....       | 7.02     |
| "    3 doz. D. eggs, 75c, 8 ducks sold, \$4.....                 | 4.75     |
| "    3 geese, 25 1/2 lbs., at 13c, \$3.25, 2 hens sold, \$1..... | 4.23     |
|  | \$134.70 |

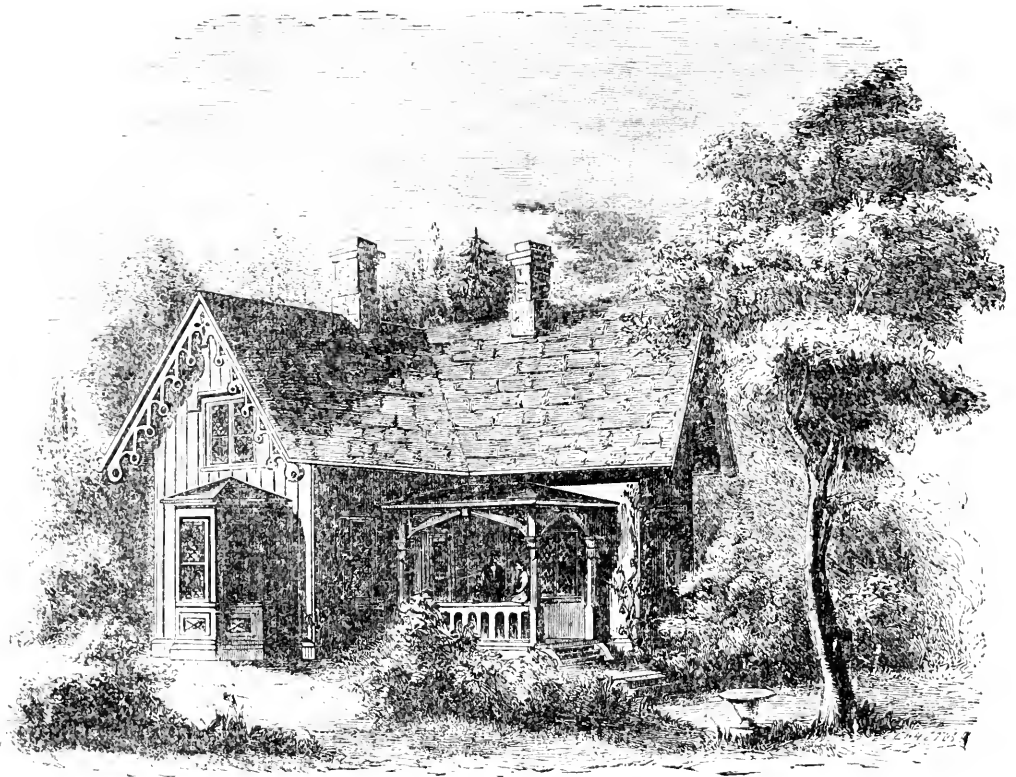
Value of increase of stock.....4.20

|                              |          |
|------------------------------|----------|
|                              | \$135.90 |
| Value of hens' eggs set..... | \$3.07   |
| "    ducks' " ".....         | 1.18     |
|                              | \$4.25   |
|                              | \$134.65 |
| Stock and keeping.....       | 80.72    |
|                              | \$53.93  |

**NUMBER OF EGGS DURING THE YEAR.**

|                              |  |
|------------------------------|--|
| 139 dozen and 10 hens' eggs. |  |
| 31 dozen and 9 ducks' eggs.  |  |
| 225 dozen and 7              |  |

Eggs charged per month as sold from the store. Poultry as per price paid by the butchers. Stock, white shanghai and Muscovy ducks. Salem, Jan., 1861. J. B.



## RURAL ARCHITECTURE.

DESIGN FOR A SUBURBAN RESIDENCE, BY GEO. E. HARNEY, LYNN, MASS.

Owing to an accident, which has disabled our engraver, and prevented him from working for some days, we are unable to present our readers with our regular design this month, and therefore give them an engraving of a design by Mr. HARNEY, for which we are indebted to the *Horticulturist*, from which magazine we copy the following description :

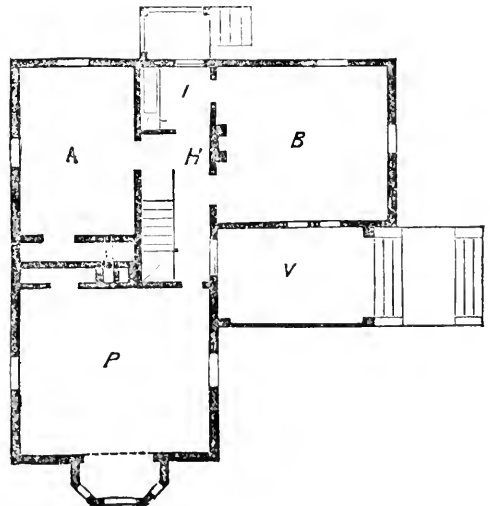
We offer the readers of the *Horticulturist* this month another design for a rural dwelling.

It is smaller and less expensive than those we have before presented, and on this account we are confident that it will meet the wants of a larger class of people.

It is designed to be built of wood, and covered with plank put on in the vertical manner, and battened. The roof is to be covered with cedar shingles, part of them pointed at the lower end, and laid on in the lozenge or diamond pattern, and the rest put on in the usual manner.

The exterior is somewhat ornamental in its character, and great care should be taken in building, that the trimmings have a solid, substantial appearance, the verge boards more particularly. For a cottage of this size, the plank from which

they are cut should never be less than two inches in thickness, but oftentimes thicker than that. The bay window and verge boards form the prominent features of the front, while the entrance



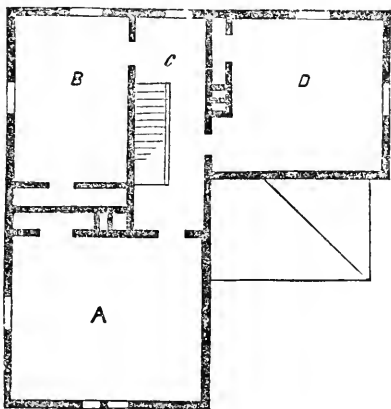
door is shielded by a veranda eight feet wide, supported on heavy posts and guarded by a balustrade. The upper panel of the front door is glazed to admit light into the hall. This hall is 6½ feet wide and 13 feet long—contains a flight of stairs to the second story, the only chamber flight in the house—and opens into the several rooms.

The parlor (P) is 14 feet by 15 feet 8 inches, and is lighted by the bay window in front, and two single windows on the sides. It also contains a closet on the side of the chimney breast.

The bed-room (A) is 9 feet by 14, and is furnished with a large clothes-press; a flue runs from the room through this closet into the chimney.

The kitchen (B) measures 13 feet by 14 feet 6 inches, and opens into the pantry, which has on the left side a pump, and sink, with a closet underneath, and is fitted up with shelves for stores; it opens out upon a platform, from which steps descend to the yard. Under this platform is an entrance to the basement, which may contain a cellar kitchen with oven and boiler, closets, store-rooms, and fuel rooms.

On the second floor are three good-sized chambers, well lighted, and supplied with closets.



The height of the first story is 10 feet 6 inches, and that of the second is 4 feet at the eaves and 10 feet in the centre of the rooms.

This cottage could be built for about \$1500.

#### HOW TO DISSOLVE BONES.

The following is a copy of a private letter written by the Editor of the *Southern Field and Fireside* to a friend who wanted to dissolve a quantity of bones for raising root crops:

“To make a good article of superphosphate from bones, you should use about half as many pounds of sulphuric acid as of bones, (dry weight;) break the bones as fine as you can with an old axe or sledge hammer, (they ought to be ground, if practicable with you,) when they should be wet by the free use of water boiling hot, adding half as many pounds as there are of dry bones. The half of a molasses hogshead will perhaps be as convenient and cheap for operating in as any thing. To the bones and boiling water in this vessel or some other, add slowly the acid, and stir the mass constantly as the acid is poured in. A

powerful boiling takes place from the escape of carbonic acid from the bones, which gradually subsides by occasionally stirring; the bones in a week or ten days become like paste, when the whole could be taken out and mixed with perfectly dry loam, or charcoal dust, to fit it for drilling with a machine. Where bones are large, or the acid weak, it may take a month to dissolve their earthy matter; and this end is promoted by covering the large tub or half-hogshead holding the bones and acid, with several loads of fermenting loose dung to increase the temperature, where heat is an important element of chemical action. I should not use over 100 lbs. to 300 lbs. of dry bones. Any bones or pieces not softened, I would compost with fermenting stable manure, whose heat and carbonic acid will slowly dissolve them.”

#### LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The sixth meeting of this Society was held in the Representatives' Hall on Monday evening, and was quite fully attended. SANFORD HOWARD, editor of the *Cultivator*, presided.

On taking the chair, Mr. Howard announced that the subject for discussion was, “*Sheep Husbandry—its advantages compared with other branches of apiculture in Massachusetts.*” He said the sheep was the most indispensable of all domestic animals to civilized man, as it supplied both food and clothing. Its domestication was of great antiquity, and all civilized, and even barbarous people, have kept it for its meat and wool, and sometimes for its milk. Speaking of the advantages of sheep husbandry, he said they were numerous; 1st, Mutton can be produced at less cost than either beef or pork, and if of proper quality, will command as high, if not a higher price, leaving the wool a clear gain. 2d, Sheep can be kept where no other domestic animals, except goats, can maintain themselves, as on mountains or hills, where the surface is rocky and rough, and where vegetation is scanty. Sheep, said he, eat a much greater number of plants than cattle or horses, and on this account, and on account of being able to obtain food under unfavorable circumstances, they will live and thrive where larger animals cannot. 3d, They aid more than other animals in improving the fertility of land, are more or less useful on arable farms, whatever may be the staple crops, and are particularly beneficial in wheat culture. Clover or grass, fed off by sheep, furnishes an excellent preparation for wheat—better than when those crops are turned in green—and light soils, when fed by sheep, are better fitted for the production of grain crops. Pastures which are generally grazed by cattle and horses are benefited by being occasionally fed by sheep, as they kill out the wild vegetation, and promote the growth of a better species of plant. Permanent meadows, and all mowing

grounds not too wet, are also improved by being grazed to some extent by sheep, as feeding off the aftermath, and being pastured through the season once in four or five years. 4th, Sheep may be made to kill out shrubs, briars, &c., which they do by constantly cropping the leaves and tender shoots, thus weakening and ultimately killing the plants, when grasses and white clover take their place.

Mr. Howard then proceeded to speak of the breeds of sheep, and said that no domestic animal, except the dog, presents such striking diversities of character as the sheep. All sheep, said he, are one species, although attempts have been made to divide them into two—hairy and woolly, and this he considered absurd. He said they were either the aboriginal or natural and the artificial breeds.

Our breeds, said he, with the exception of the Merino, have been derived principally from England, the Merino being first brought here from Spain. The choice of breeds by farmers should be regulated by the object in view, and by the particular circumstances in which they are to be placed. For wool alone no breed will pay so well as the Merino, and its sub-varieties, as the Saxon, Silesian and French. In the eastern section of the country, where the great markets are readily accessible, some of the British breeds will be the most profitable. As in their native country, so it will be here, those of the larger class will be found best adapted to the richest and best pastures, and the smaller class to the rougher and poorer districts, and he mentioned among the former, the Lincoln, Cotswold, and others, all long woolled breeds, next the South or Sussex Down, the Hampshire and Shropshire Down and the Oxfordshire Down or Down Cotswold. For mountainous districts, where more hardihood is required, he said the Cheviot and the Black faced Mountain, both Scottish breeds, are well suited—the latter being the hardest breed known, although we have very few of them in this country.

Mr. Howard then spoke of the characteristics and origin of the different breeds of sheep, and exhibited to the meeting a large number of samples of wool from the various kinds—both fine and coarse, long and short.

Speaking of the comparative number of sheep in Great Britain and the United States, he said that McQueen, in 1836, gave the number of long woolled sheep in Great Britain and Ireland as 19,800,000, while the number of short woolled was 28,200,000, the former averaging  $7\frac{1}{2}$  lbs. per fleece, and the latter averaging  $3\frac{1}{2}$  lbs., and altogether producing 246,700,000 lbs. of wool. The number now in the United Kingdom is about 55,000,000, of which all but about a quarter of a million, in Ireland, are in England and Scotland.

Mr. Howard stated that by the census of 1850 the number of sheep in the United States was 22,000,000, but he understood this number had now decreased to 20,000,000. He closed by urging on farmers the numerous advantages of raising sheep, and expressing a hope to see this branch of agriculture receive the attention its importance in a pecuniary sense merits.

Mr. FISK, of Shelburn, considered that the object in keeping sheep was to make money, and the kind of sheep that brought the most were the best to keep. In his county the pastures were good, but the farmers there found sheep improved even the good lands; they could not afford to have their sheep eat bushes and briars, as they considered it cheaper to cut them down with the scythe in August. We keep, said he, large flocks of sheep, and we find it best to limit our pastures. He thought that if land was not worth more than \$8 or \$10 per acre, it was better to let it grow to wood, but by feeding by sheep they found their poorest lands were doubled in value. They kept the South Down sheep, and from them got large and splendid lambs. In Franklin county they recommended the coarse woolled sheep, mixed with Merino, and from these they got fleeces which would average \$2,50 each, which he considered was better remuneration than could be obtained from cows. He had 25 ewes which yielded him 35 lambs for the market; for the single lambs he got \$6 each, and for the twins \$5, and could do it every year for 10 years. It cost much to keep his sheep, but he considered this, to him, the most profitable branch of farming. That great torment, the dog, had checked the breeding of sheep, and until the useless and vagabond curs were killed, sheep husbandry would never prosper. In Franklin county, he said, no farmer kept the number of sheep he would do were it not for dogs. If these could be killed there would be sheep enough, but now the dogs outnumbered the sheep. He said that the subject of repealing the dog law had been spoken of, but he thought that those who had the interest of the farmer at heart would rather insist on its enforcement instead of its repeal.

Mr. CLARK, of Framingham, spoke briefly on the dog question, and advocated the enforcement of the law requiring dogs to be muzzled.

RICHARD S. FAY, of Lynn, said he was glad to hear the expression of opinion on the dog law. We have a good law now, he thought, if it was only enforced, and if this was properly done he had no fear for the sheep. He considered that the reason it was not better enforced was because the penalty was uncertain and the matter of complaint was troublesome. In his town, the dog tax had made every dog respectable, and when sheep were killed the owners could be reimbursed.



All farmers, he thought, agreed that sheep were the most profitable animals to keep on a farm, and he thought they had been truly called the animal with the golden hoof. The gentleman from Shelburn had said he cared little for fine woolled sheep, but he thought that in some places these would be decidedly the most profitable. We must look to the mutton as well as the wool in raising sheep, and for the former there is no question the large sheep are the best, and for wool, the family of Downs are more profitable than any other. It is, said he, for the advantage of the manufacturer, and in this branch of industry he had a large interest, to advocate the keeping of fine woolled sheep, but he considered it his duty to his fellow farmers to advise the keeping of the coarse woolled kind. He read a list of prices his firm were now paying for wools from Pennsylvania, Ohio, New York and Vermont, saying that the lightest were the highest, while the coarse returned 20 per cent. more. He said he had rams weighing 300 lbs. each, and he had a flock of breeding ewes the average weight of each of which was 180 lbs. He had tried the Saxony and Merino breeds, but they had eaten him out of house and home, and by mixing these breeds he derived no benefit. He had 50 breeding ewes of the Oxford Down breed, and he got 74 lambs from them the past season. He had his lambs dropped from February to the middle of March, and found this was the best time, as they could then stand the weather better. He commenced keeping sheep 14 years ago, and then had land which was good for no farming purpose, but now he kept on this same land 12 to 18 cows; besides his flock of 150 sheep, all of which were doing exceedingly well, and the improvement was attributable mainly to the sheep. He thought it important that the land should be watched to see that it is not fed too close, and he recommended the giving of each sheep at night half a pound of cotton oil seed, as a sheep that is fed on nothing is worth nothing. He thought that the more various the food, and that of good quality, the better a sheep would pay, but care should be taken not to let them get poor, as it would cost more than they were worth to put the flesh on again, and the wool would be sure to be tender.

AMASA WALKER, of North Brookfield, said that a neighbor of his kept a flock of 400 sheep last fall, and he had had 50 of them killed by dogs. We have, said he, a good many agricultural societies in different parts of the State, and he suggested that they make it their business to look after the dog law, and report to the Secretary of the Board of Agriculture the names of those towns that did not enforce the law. When he was in England, he saw sheep on every farm, and often heard wonder expressed by farmers there that they were not on every farm here; he

was satisfied they were essential on every farm, as they eat the grasses which no other animal will eat. There were two matters which required looking to, the first of which was the enforcement of the dog law, and next, the keeping of sheep orderly, a matter requiring little trouble with the modern breeds.

CHARLES S. DAVIS, of Plymouth, said he had suggested to members of the Legislature an amendment to the dog law, and an order had been introduced having that object in view, and which was referred to the Judiciary Committee, but this had been reported back and referred to the Committee on Agriculture, a member of which had told him that, instead of being amended, the law ought to be repealed; but he hoped the Legislature would make the law stronger and more effective than it now is. More than half the farmers in the State, said he, believe that the keeping of sheep is injurious to the land, but it is a rule in England that if there is vegetable matter enough on the land to absorb the fertilizing qualities of the sheep droppings, that keeping sheep is decidedly beneficial. It is also made an objection, that sheep will jump fences, and that our fences are not suitable for sheep; this is also a mistake, as the new breeds of sheep will very rarely jump, but will creep through holes, and to keep them in the pasture, lower fences than are required to restrain cattle are necessary. He said it was well known that a man who keeps a dozen sheep finds them the most profitable of anything on his farm. He was desirous of seeing the dog law so amended as to make the towns liable for cattle and sheep killed by dogs, and he thought this far preferable to any action agricultural societies could take. Ten years ago, there were 220,000 sheep in the State, while now there are not more than 112,000; but there are 33,000 dogs now licensed, more than that number unlicensed, and the first year the dog law was in operation there were as many killed. He thought that the owners of dogs, good ones, and those worth keeping, were decidedly in favor of the law.

Mr. FISK, of Shelburn, spoke in severe terms of the Selectmen in his town, because they would not enforce the law, and said that the farmers had been obliged to take the matter into their own hands. He considered that with them the Cotswold breed of sheep were the best to keep. He had five for which he paid \$100, and they had paid for themselves the first year he had them. They were tame and kind, and would remain wherever they were placed.

Mr. WALLIS, of Bolton, said he was one of the Selectmen of his town, and thought the dog law was now all that was required; the trouble was not in the law, but in the execution of it. He related the case of a farmer in Bolton who

three years ago informed the Selectmen that he had 30 sheep, worth \$4 each, that had been maimed by dogs, and they told him to kill them. He did so, and they paid him his price for them out of the dog license fund. It afterwards appeared that two months before the same sheep had cost him \$2 each, and he had consequently doubled his money on them, besides getting the wool, pelts and carcasses to boot. He said he did not know any class of husbandry that was better protected than sheep husbandry. He closed by saying that every owner of sheep had a remedy at common law against the owners of dogs that injured his property.

Mr. MERRIAM, of Fitchburg, briefly spoke in favor of an amendment to the dog law, so that towns should not return the amount of money paid for licenses, but that they should enforce the law, and keep the money for a fund from which to pay damages.

It was announced that the subject for discussion at the next meeting would be, "*The most advantageous methods of improving pasture and meadow lands.*" The meeting then adjourned.

For the New England Farmer.

#### A NEW GRAPE.

MR. EDITOR:—There has been so much written and said of late, descriptive of many of the newer varieties of grapes, that I should maintain a profound silence, did I not think that I might do some service to a portion of your readers, by giving a description of a variety which came under my observation during the past autumn. It has been difficult for the past three years to thoroughly ripen any of the newer varieties of grapes, such as the Catawba, Isabella, Diana and Concord, though the last two have, in southerly exposures, and with careful attention, succeeded fairly. Most of our New England horticulturists recommend for this latitude the three last named varieties, which, so far as quality goes, are unsurpassed, but are not sure to ripen sufficiently early to escape our severe frosts. What is particularly needed now is a variety which is sure to ripen at least two weeks earlier than the Concord, and I think such a one has been found. While in the nursery of Mr. GEO. BRYANT, last fall, I was shown a vine of what he called the Catawba Seedling; it was about the 10th of September when I saw it, the vine was of good size, trained on a trellis in the open nursery, and at this time nearly all the berries were turned, and most of them were nearly ripe. I ate a few, and found the quality very good, though not as thin skinned and pulpy as the Isabella or Diana; the berries are medium size; color, a dark purple; the bunches are of good size, very compact though not shouldered; the vine is very hardy, withstanding our winters without any protection.

I write this from actual experience, as I bought a vine of this kind two or three years ago, and it has withstood the past two winters without the least protection. I would not advise those who

are about setting a few vines to purchase only this kind, but would ask them to set a portion of this in addition to the other varieties, on account of its hardiness and early ripening, not doubting that they will experience much satisfaction by so doing.

J. N. N.

East Bridgewater, Jan., 1861.

#### ORNAMENTAL HEDGES.

One of the most striking features of any country is its fences; so much so, that the various styles of these division lines seem to have almost as much influence in determining its character and general appearance, as the nose on a man's face has in giving expression to his physiognomy. Very many—in fact, the great majority of fences—are excessively ugly. Even those primitives ones in new countries, formed by turning up edgewise the spreading roots of great trees, have the merit of being picturesque—which some have not.

In England, the face of the country is made to wear an aspect of smiling cheerfulness by reason of its numerous hedges; while, in the opposite extreme, in France, where no obvious lines mark the divisions of property, the effect must be quite monotonous. Our own institution—the *rail fence*—may perhaps give a type of the independence of time and circumstance peculiar to the great American people, but it is not particularly ornamental.

There is no one who cannot appreciate, and will not acknowledge the great beauty of well kept hedges. So popular is the idea, that experiments have been made with almost every variety of hardy plants, with a view to test their efficiency in forming suitable hedges. Failure has followed very many of these attempts, and partial success rewarded others. Some few hold their own under all circumstances, as well adapted to make, with proper management, strong and efficient fences. Of these we will not speak, but leave Buckthorn and Hawthorn, Honey Locust and Osage Orange, each to assert its own claims to superiority as best it can.

But there are many situations where *screens* and *ornamental* fences only are required—not protection against depredators. Many such circumstances will suggest themselves to every one. As a means of shielding certain spots from cold winds, belts of trees or shrubbery are, oftentimes, very efficient, as well as ornamental; and for inside division lines, screens of hardy evergreens cannot be too highly recommended—being at the same time very beautiful, rapid in their growth, simple and easy in their construction, and managed without difficulty. To hide disagreeable and unsightly objects; to inclose portions of the garden devoted to half-hardy plants; to separate the kitchen garden from the more ornamental portions of the grounds; and for an indefinite variety of circumstances, each peculiar to its own locality, these evergreen screens are very happily adapted. They are becoming very popular wherever known.

Of all the evergreens employed for this purpose, the *American Arbor Vite* (*Thuja*, or, according to some botanists, *Biota occidentalis*.) seems best adapted to succeed, for several reasons. It is easily and cheaply obtained, perfectly

hardy, and adapted to a great variety of soils and climates. It is native over a large portion of the American continent, and is found in almost every kind of soil and situation. Its form and normal mode of growth is *pyramidal*—just the *proper* form which we wish to encourage in forming a hedge. The natural tendency of the *Thorn* and *Osage Orange* is to grow into a spreading tree, large at the top, and thin at the bottom—just the opposite of what we seek, when striving to distort them into hedges. It is a continual battle, as it were, between man and nature, for the supremacy; and just in proportion as man is enabled to conquer, we say the plant is adapted to hedging; while if the plant is stubborn, and dies or droops under the treatment, we say it will not do for hedging—it is a humbug. Sometimes, as in the case of the *Osage Orange*, it seems to laugh at the efforts of man; and, while he sleeps, shoots up sturdily and fractiously, half-a-dozen times in a summer, into its old tree form, utterly regardless of what is going to become of the hedge beneath it.

Many of the new and foreign sorts of the *Arbor Vitæ* are very beautiful, but none of them have been sufficiently tested to warrant a recommendation of them for the purpose of which we are speaking. The *Siberian* is more compact in its growth than the *American*, and keeps its color well in winter; but it is also slower in growing, and moreover is scarce and high in price. The *Golden Arbor Vitæ*, although of a beautiful color, is, unfortunately, not quite hardy.

The accompanying engraving is an accurate drawing of a section of a screen, six years from setting, in the grounds of H. E. HOOKER & Co., Rochester, N. Y., now about four and a half feet high, perfectly smooth and dense, and an object of



American Arbor Vitæ Hedge.

admiration to every one. On the same grounds is another hedge about three feet high, set out three years ago last spring, in length about 800 feet, in which only three plants were lost of the entire planting, and even *these* have never been replaced.

To give an idea of the method of forming and cultivating such a hedge is the object of this article. Attention to a few simple particulars will in a short time yield abundant satisfaction, and allow very few chances of failure.

In preparing to plant, have the ground deep, and dry, and mellow—not too much enriched with manure. Calculate for a border on either side

of, say, four feet, which is to be kept clean *permanently*; and if the soil is mellow and rich, this forms a beautiful situation for the cultivation of low flowering plants, which appear to very pretty advantage in contrast with the deep green background of the *Arbor Vitæ*. Dwarf-growing roses—especially of shades of red—are very beautiful in such a contrast. Many other flowering plants will suggest themselves to every one.

After preparing the ground—which is always the first thing to be attended to in projecting a plantation of any kind—a very important point is choosing the proper kind of plants. If taken from the woods and planted without further education into the hedge row, probably not more than every other one would live, and of these one-half more would so far fall behind the rest in health and vigor as to make the entire planting a failure. If, then, you are to rely upon the woods and fields for a stock of plants, choose those as uniform in size as possible, not more than one foot in height, and well furnished with branches. Set them out in rows in well prepared ground, so that they may be cultivated and kept clean. In two years, the majority of them will have become handsome, stocky plants; and, when taken up, will be found to have a mass of fine fibrous roots, rendering them sure to live, and well adapted to thrive in their future resting-places.

However, these two years of time and labor may be saved; for plants like those described may generally be obtained at the nurseries very cheaply. And as a row of such plants becomes an object of beauty from the very commencement, we may consider that it is money well expended. In short, nothing, in all the operations of horticulture, yields so sure and quick returns as this.

Evergreens should always be set in the spring. When the plants are received and unpacked, carefully separate and spread open the roots: cut off all broken portions, lay them in the ground until ready to plant out, and by all means *avoid contact with wind and sun*. Puddle the roots in a mixture of water and clay, with a little decayed manure; then plant immediately by a line, taking care not to crowd the roots, but spread them out evenly; cover them with fine earth, and press the ground firmly about the plant. It is well to mulch the ground with coarse manure, but it is not necessary—always supposing the border to be kept well cultivated.

The proper distance for planting is about one foot apart. Nothing is gained by having more than a single row of plants.

The after culture is exceedingly simple and easily remembered. During the first year the plants need nothing but to be kept clean—occasionally, perhaps, cutting off a straggling shoot. The second spring from setting, stretch a line firmly and evenly across the top of the plants, and cut off all shoots appearing above the line. Stretch the line again on either side, at the base of the plants, and trim up to it. Thus we have the bottom or base, and the apex of the hedge

fixed, and if these are true, the rest becomes easy. Shear all off evenly between these points, and we have the form of a triangular prism, which, in the opinion of the writer, is the best, both as regards beauty and well-being of the hedge. Practically, it should not be sheared quite to a point on top, but nearly so. The shape of the one represented in the drawing is varied a little from that described, by being rounded a little; but in practice it is difficult to make this perfectly true, which mars the beauty of the whole. However, every one may consult his own taste; and skill in manipulating the shears is only gained by experience. After the third year, the hedge needs only to be trimmed evenly at midsummer, and it will soon become dense and smooth.—*Rural Annual*.

#### EXTRACTS AND REPLIES.

##### BITING HORSES—UPLAND CRANBERRIES—ESSAY ON MANURES.

You tell us, and tell truly, that to whip a contrary horse is not the way. How is it in regard to a disposition to bite? Can this be corrected by the whip?

Does it pay, as a general thing, to attempt to cultivate the upland cranberry? If so, where can plants be obtained, with directions as to soil, cultivation, &c.?

Where can Reynolds' "Essay on Manures" be obtained? E.

*Framingham, Jan. 19, 1861.*

REMARKS.—*Kindness*, if anything, will cure a horse of any bad habit. The law of love will do more for any creature, man or beast, than all the parchment laws that were ever framed. Make the horse understand by all the means in your power that you are his friend—that you will not hurt him, and you will soon find a wonderful sympathy growing up between you. This is the whole secret of Mr. Rarey's wonderful power over horses.

Cranberries can be raised on moist upland. Get the plants from some meadow in your neighborhood that produces good fruit.

A few copies of Reynolds' "Essay on Manures," might, perhaps, be obtained from him at Concord, or of the Massachusetts Society for the Promotion of Agriculture.

#### A GOOD HORSE CART.

If the following is regarded by you an answer to the inquiry for a description of a good horse cart, you can use it.

In the spring of 1856, I concluded to do my work with a horse, and wanted a wagon and cart both, which lead me to conceive of the plan. I had a stout wagon built. The fore-axles were 1½ inches, hind 1¼ inch, tire 2 inches wide; otherwise light as could be to correspond. Had the rocker and hind axle connected by three pieces, the same as a light wagon, the body connected to these by bolts, which may at pleasure be taken out and the body placed back on the hind wheels and attached by hooks so that it will tip as a cart.

The only disadvantages are, it requires more room to turn than with two wheels, and the fore wheels are somewhat in the way about unloading. The advantages are, a horse works much easier than on two wheels, and I think will draw more over plowed ground and rough land. The short body is easily laid aside, and a long rack put on for hay by bolting this extra rocker up to the rack body. The economy is, the one carriage answers every purpose of farm work, saving also extra harness. After so long trial, I would not exchange for cart and wagon.

*Londonderry, N. H., 1861. J. A. HOLMES.*

#### REMEDY FOR CHOKED CATTLE.

I noticed the inquiry in the *Farmer* for some remedy to relieve choked cattle, and have read the several answers. Permit me, Mr. Editor, from actual observation, to give my experience. A few months ago, while on a visit to a friend, a valuable ox was choked with a large potato while driving through the potato field; the ox appeared in great distress, and began to bloat very badly. It was evident he could not live long unless relieved. The usual remedies were talked over, when an old lady came to the rescue. She said that in her younger days they used to turn down warm lard in such a case. Accordingly the ox's head was fastened and about a pint of warm lard turned down his throat through a tin horn, and in less than two minutes the potato was thrown to the ground.

#### WASHING FLUID.

Can you, or some of your subscribers, give a good recipe for washing fluid, and thus help an old lady to keep good natured on washing day?

*Bridgport, Vt., Jan., 1861. EXPERIENCE.*

HOT BEDS.—You who love the garden, and intend that your tables shall be graced with the delicacies of the season, will not forget to prepare the hot bed in good time. Do not look upon it as a *scientific* operation, one requiring a carpenter or any other artisan to construct it, but take the square, saw and hammer, and make it yourself in double-quick-time. Purchase the sash, if you have no old ones. In some sheltered and sunny spot, throw out the earth to the depth of a foot, fill in with horse manure, and on that six inches of fine loam or leaf mould, and put on the glass. Water properly, and when the whole is sufficiently warm, put in the seeds.

A HOT BED IN THE KITCHEN.—A peck measure, an old box or earthen pot may be filled with proper soil, and tomatoes, lettuce, radishes, cabbages and other edibles started successfully without the cost of anything but a little pleasant care—and the pleasure of seeing them burst into life, and grow, will repay all this, to say nothing of the fun of eating them. Will the women see that this is done?

WORCESTER AGRICULTURAL SOCIETY. — Through the attention of the President, we have read the Transactions of the Worcester County Agricultural Society for the year 1860, being the *forty-second* annual report! It contains no address, as has been usual. The first report is upon Sheep—A. G. HILL, Chairman, and says—

“It has been asserted—and we have no reason to doubt the fact—that to a pasture that will keep a given number of cows, as many sheep may be added without impairing its fertility. And as six sheep require about the same amount of food as a cow, per day,—or  $2\frac{1}{2}$  or 3 per cent. of their weight,—it will be seen that a farmer can pasture a few sheep with his neat stock, with little or no added expense, and at the same time increase the fertility of the land. By stabling our dairy cows at night as is the general custom, our pastures are becoming rapidly exhausted.”

It has a long and excellent report upon *Fruit*, by SAMUEL A. CUSHING. Is Mr. Cushing acquainted with the “Hunt Russet” apple?

The officers for 1861 are, *President*, WILLIAM S. LINCOLN, Worcester. *Vice-Presidents*, GEORGE HOBBS, Worcester; AUGUSTUS G. HILL, Harvard. *Recording and Corresponding Secretary*, JOHN D. WASHBURN, Worcester. *Treasurer*, CHARLES M. MILES, Worcester.

STIFLE JOINT LAMENESS is apt to affect young colts, and is produced by the wearing away of the toe. It is in fact the dislocation of the patella or knee pan. It is most prevalent when the animal is kept on hard, hilly ground. The best remedy is to have him shod, and remove him to level ground.

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## HORTICULTURAL HINTS.

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THE SWEET PEA.—One of the most beautiful and fragrant of our annual flowers, is the sweet pea. It is a little singular that it is so little cultivated, when we consider how easy its cultivation is, how graceful, varied and beautiful its flowers, and how delightful their perfume. The colors of the flowers are white, scarlet, rose, purple, variegated and black. A hybrid sweet pea has been raised by an English florist, Capt. Clarke, being a cross between the “painted lady” and “purple sweet pea.” This beautiful variety has upper petals of a delicate rose color, and the lower ones white, with a deep blue edge.

The sweet pea, in good ground, will grow six feet high, and will make a handsome screen or covering for a fence. They will require a trellis or frame of some sort for support, or they will cling to strings. If brush should be used, as for garden peas, care should be taken to select the best, so that until it is covered with the vines it may be as unobjectionable as possible. At best, however, brush is unsightly, and should never be used if a frame or trellis of any sort can be procured.

The sweet pea, like the common garden peas, may be planted as early in the season as the

ground is in fit condition. It will be necessary to plant for succession in June, although if the flowers are cut when they begin to wither, and not allowed to mature their seeds, they will continue in bloom a great length of time, particularly if the season be moist.

The flowers are valuable for bouquets, being both beautiful in appearance and delicious in perfume, qualities not often combined in the same flower.—*Country Gentleman*.

GROWING HYACINTHS IN GLASSES.—The following directions are given in the *Irish Farmer's Gazette*, in answer to an inquiry:

If your hyacinths are grown in glasses with water, dark colored glasses are best, and the water should not be allowed to rise more than to touch the bottom of the bulb; otherwise they will rot. When first put in the glasses, they should be stored away in a dark, cool place, till the roots are about an inch long. If the roots do not grow vigorously, give two or three drops of hartshorn in each fresh supply of water, and put in the glass a small lump of charcoal. The water should be changed every fortnight, or three weeks at farthest; but to do this the plant must not be taken out, but the glass held horizontally, and the water poured off. Soft or rain water should always be used. By this mode of treatment, and not keeping them in too warm or close a place, they will bloom beautifully. If you grow them in pots, they should have plenty of light and air, that they be not too much drawn. The bottom of the pot should have plenty of broken tiles in it, to allow of perfect drainage; and be frequently, but moderately supplied with water. It is very destructive to them to be placed in saucers filled with water. The saucers should be kept dry. Any drainage pouring into it from the pot should be removed; so that the drainage may always be perfect. Whether in pots or glasses, the flowers should be well supported with sticks, or they will get top-heavy, fall down, and get destroyed, and shift the plants round a little every day, to prevent them growing to one side.

HYACINTHS.—A correspondent asks us, “Why do hyacinth bulbs, if grown in water, exhaust themselves in a single season, while, if grown in soil, they will last three or four years?”

*Answer*.—The amount of inorganic matter furnished by the water is sufficient to give such a result as will last during the season. An organism to be perfect, must be supplied with as much inorganic matter as it is capable of appropriating, to complete itself; in other words, the same amount, and in the same state of progression as that which would be exhibited in the ashes of a healthy plant of the same kind if burnt.—*Working Farmer*.

HARDY CLIMBING ROSES.—A good assortment of these are: *Prairie Queen*, bright rose, very double; *Baltimore Belle*, white, clusters. A good, hardy yellow can only be had among the briar sorts, of which the *Harrisonii* is a fine brilliant variety. For purple, take the *Boursault Purplea*. *Anne Maria*, a rosy pink, and *Mrs. Hovey*, a pure white, are also good sorts.—*American Agriculturist*.

**EYEBEARING RASPBERRIES.**—There is no reason why we may not one day have perpetual raspberries as well as perpetual roses; there is nothing unreasonable or impossible in it, but yet we have not seen anything of the kind. People will differ in their tastes, and some wish to have raspberries, or some other distinctive variety of fruit ever before them, while others of us think that the gradual succession in the natural order of ripening of different kinds of fruits, from early summer to the end of winter, is more in accordance with the intent of the wise Giver of all these good gifts.—*DR. WARDER, in Cincinnatus.*

**PARISIAN MODE OF ROASTING APPLES.**—Select the largest apples; scoop out the core without cutting quite through; fill the hollow with butter and fine, soft sugar; let them roast in a slow oven, and serve up with the syrup.—*Maine Farmer.*

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## LADIES' DEPARTMENT.

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### FOR WHAT CHILDREN ARE MOST GRATEFUL.

Parents spend a life of toil in order to leave their children wealth, to secure them social position or other worldly advantages. I do not underrate the worth of these things. Had they not been valuable, there would not have been so many providential arrangements impelling men to seek them. I would not only show that there is something of infinitely greater value, not only to the parent, but to be transmitted to the child. What does the child most love to remember? I never heard a child express any gratification or pride that a parent had been too fond of accumulating money, though the child at that moment, was enjoying that accumulation. But I have heard children, though their inheritance had been crippled and cut down by it, say, with a glow of satisfaction on their features, that a parent had been too kind-hearted, too hospitable, too liberal and public-spirited, to be a very prosperous man. A parent who leaves nothing but wealth, or similar social advantages, to his children, is apt to be speedily forgotten.

However it ought to be, parents are not particularly held in honor by children because of the worldly advantages they leave them. These are received as a matter of course. There is comparatively little gratitude for this. The heir of an empire hardly thanks him who bequeathed it. He more often endeavors before his time to thrust him from his throne. But let a child be able to say, My father was a just man, he was affectionate in his home, he was tender-hearted, he was useful in the community and loved to do good in society, he was a helper of the young, the poor, the unfortunate, he was a man of principle, liberal, upright, devout—and the child's memory cleaves to that parent. He honors him, reveres him, treasures his name and his memory, thinks himself blest in having had such a parent, and the older he grows, instead of forgetting, only reveres and honors and remembers him the more. Here is experience and affection sitting in judgment on human attainments. It shows what is most worth the seeking.—*Ephraim Peabody.*

### LITTLE CHILDREN'S DRESSES---NAKED ARMS AND NECKS.

A distinguished physician, who died some years since in Paris, declared: "I believe that during the twenty-six years I have practiced my profession in this city, 20,000 children have been carried to the cemeteries, a sacrifice to the absurd custom of exposing their arms naked."

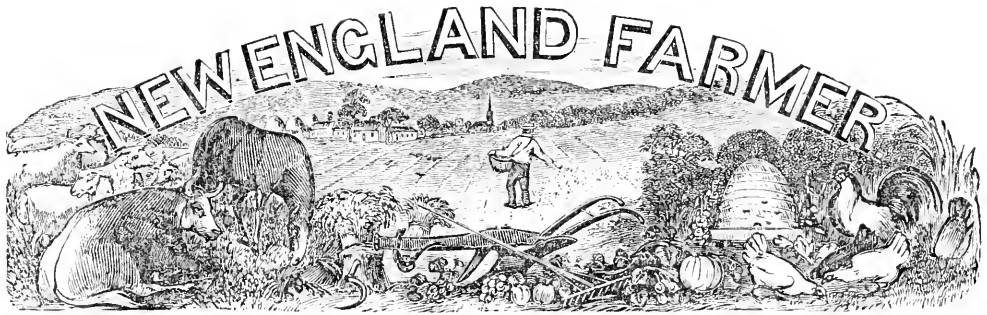
I have often thought, if a mother were anxious to show the soft, white skin of her baby, and would cut a round hole in the little thing's dress, just over the heart, and then carry it about for observation by the company, it would do very little harm. But to expose the baby's arms, members so far removed from the heart, and with such feeble circulation at best, is a most pernicious practice.

Put the bulb of a thermometer in a baby's mouth; the mercury rises to 99 degrees. Now carry the same bulb to its little hand; if the arms be bare and the evening cool, the mercury will sink 40 degrees. Of course, all the blood which flows through these arms and hands must fall from 20 to 40 degrees below the temperature of the heart. Need I say that when these cold currents of blood flow back into the chest, the child's general vitality must be more or less compromised? And need I add that we ought not to be surprised at its frequently occasioning affections of the lungs, throat and stomach?

I have seen more than one child with habitual cough and hoarseness, or choking with mucus, entirely and permanently relieved by simply keeping its arms and hands warm. Every observing and progressive physician has daily opportunities to witness the same simple cure.—*Lewis's New Gymnastics.*

**WEDDING CEREMONIES ON THE ALPS.**—There are still many of the old customs remaining, of which one of the most peculiar is the wedding, which has some of the features of those in the northern part of Germany. An orator is the bearer of invitations, who is often the village school-master. He makes a formal speech before every house, which all the people run to hear. On the morning of the wedding, he accompanies the bridegroom and groomsmen to the house of the bride, where they breakfast together; after which he makes a speech to the father and mother, recounting to them all the noble qualities of the bridegroom, and beseeching them to give their daughter willingly away, as he is sure a long life of happiness is in store for her. A rival orator then "takes the word," and presents the dark side of the picture, all the difficulties of the new position and the virtues of the bride. After this parliamentary discussion, the bride departs with her betrothed for church, amidst prayers and tears, and good wishes: and to keep up her spirits, musicians cheer her way with song.—*The Cottages of the Alps, by a Lady.*

**DELICACY.**—Shame is a feeling of profanation. Friendship, love and piety ought to be handled with a sort of mysterious secrecy; they ought to be spoken of only in the rare moments of perfect confidence—to be mutually understood in silence. Many things are too delicate to be thought; many more, to be spoken.—*Novalis.*



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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### FARM WORK FOR APRIL.

"The lark sits high in the walnut tree,  
And it rains, it rains, it rains;  
A jolly philosopher sure is he,  
While it rains, it rains, it rains;  
Blithely he looks at the meadows below,  
Where his nest will be when the grass blades grow.  
And pours out his song in a liquid flow,  
While it rains, it rains, it rains."



THE active season for the farmer opens with APRIL, when the varied labors that are to come before him through the months which are to supply his crops, demand especial attention. If a man of forecast and system, like a prudent general who perfects his plans before he enters the field of

his campaign, he has mapped out his plans, and has them all at his command, so that men nor teams ever wait for him to decide what is to be done with this field or that.

APRIL brings a revivification of nature, and this inspires us all with new life, hope and ambition. The opening flower, springing grass, the lowing herds, and other cheerful voices of animated nature, all serve to kindle in us a new class of emotions of the most agreeable kind. The labor of the farmer leads him into the midst of these kindly influences, where he may meditate upon their connection with his labors, and, with his springing plants, rise rapidly towards heaven himself. In this pleasant field of labor, then, let us see what is to be done.

CLEAN SURROUNDINGS.—Nothing is more important than to make HOME pleasant and attractive, and the first step towards this, is to make its approaches clean. As soon as the snow is off,

the frost out, and the surface settled, put the hoe and rake in use to gather up whatever rubbish may have accumulated about the buildings during the winter. In this work you will need a *short tooth rake*. When this is done, sweep the lawn, and issue a decree, that whosoever defiles it with sticks, chips, bits of paper, old rags, bones or egg shells, shall not only remove them instantly, but be fined a dime for each offence, or be posted on the walls of the house, as a—sloven!

Who ever approached a farm-house and found around the buildings a neat little lawn, with its velvet carpet of richest green, and *not a blemish upon it*, without thinking, if not saying, "This is the abode of neatness and tranquillity—the graces are here, let us enter and enjoy them?"

THE WOOD PILE.—Do not allow this to remain unhoused till midsummer. It is money at interest, under cover, where it can receive a daily airing. Out of doors, it is a blotch in the surroundings, unless neatly piled and covered with boards.

DROPPINGS IN MOWING FIELDS.—Where cattle fed on mowing grounds, last autumn, little heaps will be found, and unless scattered and broken to pieces will be uncomfortable in haying time. Broken, and dissolved by rains, they become valuable fertilizers. Close fall feeding, by the way, is a wretched policy—scarcely anything is more fatal to the grass; it is much like continually stripping a plant of its foliage, and expecting it to flourish. After grass is cut to be made into hay, the roots have sufficient strength left to throw out *new leaves*, and these, in turn, are wanted to invigorate the roots, and when the leaves are cropt off day after day, the roots are so weakened that they cannot withstand the drought of autumn or the cold of winter, and the grass "runs out," as it is called. Close fall feeding of mowing lands, is more costly than feeding the stock on hay and grain.

OVERHAUL MANURES.—If manure is to be spread upon the sward and plowed under, no mat-

ter how green and crude it is, and all overhauling will only impair its value for such a purpose. But if it is to be spread on sward land after it is plowed, it should be overhauled once or twice, and made as fine as possible, and then plowed under only two or three inches. If fine, it can be more evenly distributed over the field, and more conveniently and certainly got under the surface. The rains penetrate it more readily, and wash out its fertilizing properties and convey them to the roots of the plants. If fine, it comes in contact with a larger portion of the surrounding minerals, bringing them to act together, and thus furnish sustenance for the growing crops.

On the other hand, if it is coarse, it requires nearly double the labor to get it under the soil, and a considerable portion will be left on the surface, in the way of the hoe, and drying up so as to supply little to the plants that need it. The action alluded to in the preceding paragraph is also lost, which is an essential loss.

If, however, manure can be applied to stubble land in the fall, and plowed under six or eight inches, it may be put on in a crude state, and *we think there is no other way in which it can be applied with so much advantage.*

There is a little loss in overhauling manure heaps, in the escape of its ammonia, undoubtedly, but that loss is unimportant, compared with that of using it in a coarse condition, so that it cannot be intimately mingled with the soil.

FENCES.—So soon as the absence of frost will permit, make new, or repair old, fences, and do the work so thoroughly that no animal will be tempted to “commit a “breach of the peace.” Animals may be educated to become unruly as well as humans, but with good fences and a reasonable pasturage, few will become “unruly.” Such as are found to inherit the “original sin” should go to steaks and sirloins as soon as possible.

POACHING.—It used to be the practice—perhaps it is now with some farmers—to allow cattle to run over the mowing fields and through the orchards as soon as the snow left the ground. Was it a good practice? Why not? Will some one tell us?

THE OAT CROP.—On lands that are sufficiently dry, it is advisable to get in oats as early as possible, so that the work of seeding may be out of the way, and that the crop may be taken off the ground, and give the young grass opportunity to get thoroughly established before freezing weather.

DRAINING.—August and September are pre-eminently the months for this work, but if time can be found to drain that disagreeable and unprofitable piece of land that *lies so near the house*, it would be a great comfort to the women to have

it done. Besides, that is the best acre of grass land on the farm, and drained and top-dressed a little annually, it would yield two tons per acre, for twenty years in succession.

Of course, there are many other things to be done on the farm in APRIL, which will suggest themselves to him who has the responsibility of attending to them. He must remember that a *good start* generally accomplishes about one-half the thing to be done, and that it is the laggard who is forever grumbling and puffing and blowing and trying to catch up with the world, but never does it. It is an exceedingly disagreeable state of mind, always to feel in a hurry. Let us, then, be up with the season in our work, be contented and cheerful, and full of well-founded hope of progress and profit through the growing months.

“The crocuses put up their lit’le heads,  
While it rains, it rains, it rains;  
And the pink spires spring from their chilly beds,  
While it rains, it rains, it rains;  
The peach blossoms whisper within their cells,  
‘We will open our eyes and peep from our bells,  
While it rains, it rains, it rains.’”

#### HORSE TAMING.

Want of space prevented our enumerating the different animals experimented on by Mr. Rarey at his first exhibition. The third one introduced was a wild horse from South America, whose numerous antics on entering, made very evident the statement of Mr. Rarey that “he had never been broke except to the halter.” But before the nimble mustang left he was thoroughly “broke” in every sense of the word, and had effectually learned the lesson which the tamer impresses upon every horse which comes under his influence, that “man is the master.” In less than fifteen minutes time, this rampant little nag had become the very pattern of gentleness and humility. So there was no further use for him, and he was led away bestowing, as he disappeared, a remarkably meek look upon the audience, as much as to say, “I’m a used up horse.” After the exhibition of two diminutive Shetland ponies, a magnificent stallion was led in by the attendants, who were careful to keep at a good distance from him, using all the latitude the ropes allowed of. He was indeed a magnificent specimen of horse flesh, with an eye betokening almost human intelligence, and which excited a murmur of approbation from the whole audience. A most vicious beast, for four years he had been entirely unmanageable, having killed two keepers, and injured several others. He kicked, struck with his fore feet, and repeatedly endeavored to bite the tamer, through his heavy muzzle. But it was all labor lost; he fared no better than his predecessors, and in a short time was so thoroughly subjugated as to allow Mr. Rarey to sit upon his back, handle his fore and hind feet, even lay them on his face, pull him about the stage while stretched on his back, and most surprising of all, to remove the muzzle and thrust his hand, and then his arm, into the animal’s mouth.



In this subduing process, the first end to be attained by the subduer is a thorough understanding between himself and the horse. The animal must be convinced by a certain course of humane treatment—he never can be by ill usage—that man is his master, and by quiet submission no harm or suffering will come to him; make this impression upon him, and he yields himself completely to your power. To accomplish this, Mr. Rarey, with a skilful manœuvre, manages to take away the use of one leg by attaching a strap to the fetlock, which is then drawn up through the girth or belly-band, and fastened short enough to remove the foot from the floor. After the lapse of a few moments the other fore leg is treated in the same manner, and the horse is thrown upon his knee-joints. In this condition he is powerless, yet does not give up. But seeing that his exertions to rise or to injure the tamer are futile, in a few moments he rolls over upon his side thoroughly conquered. The principal object is accomplished, and now that he is in his power, the tamer caresses him, strokes his mane, lies by his side with his arm encircling his neck, and thus convinces the animal that he would not harm him on any account. He perceives no ill disposition in the master, and he will manifest none himself. A feeling of sympathy has been established between man and beast. This constitutes the whole secret of Mr. Rarey's wonderful power over horses. A single lesson will not suffice, as is generally supposed, but four or five days are required to accomplish the complete subjugation of an animal. Besides proving so clearly this general principle, which should be followed by horse managers, Mr. Rarey has presented some most valuable suggestions as to the best method of lifting a horse's foot from the ground, mounting the saddle, and stopping the animal when attempting to run away.

I have often, said he, been angry with farriers for the bungling and careless way in which they took hold of a hoof, when about to shoe it. There is a right and wrong way. Don't grab at it, as if it was a roasted apple in a furnace, but begin thus—pat the horse's neck, pat his shoulder, lean yourself familiarly against the upper part of his leg, run your hand gently and soothingly down to his foot, and then easily, steadily (not steady by jerks) take it up—all motive for resistance being absent, the foot will lie peacefully in the hand, the nerves are relaxed, and you can throw it up, and up, and there will be no trouble.

In mounting a horse, many people go to work with the wrong end first, as indeed they do about everything. It's as simple as possible. You don't want to have all of your weight come on one side of the horse; if you do, the saddle is drawn on one side, and it is not easy for the horse to sustain it, but you should now place your hand on his neck, bearing thereon so that the hand shall balance the foot, then spring lightly in. You can do this as well when the saddle is ungirded as when tightly fastened. In the head the horse has immense power.

No man can ever hope to hold in a running horse by pulling evenly upon the bit; he might as well try to lift himself over the fence by pulling at his boot-straps; it can't be done. When a horse's head is turned to one side he is compelled to so arrange his legs that they will prop-

erly balance him—he cannot run forward—therefore my advice would be, if a horse is running away, or if he refuses to go, to pull tightly as I now do upon the right rein, and force the horse to describe a circle for an indefinite period of time, after which, you may depend upon it, he will not attempt the same trick.

*For the New England Farmer.*

#### THE PLUM WEEVIL.

MR. EDITOR:—I read with great pleasure the various contributions on the subject of Insects in your valued paper, but regret the ignorance which seems to prevail with regard to the natural laws which govern them, and control their habits and transformations. My attention was called particularly to a communication in the paper of Feb. 9, from your correspondent, Mr. WHITE, of So. Hadley, which I will proceed to discuss, if he will excuse the liberty, for the sake of the motive. For the destruction of insects on the plum tree, he recommends vials of sweetened water hung from the limbs; stating that he has found in them hundreds of insects that he had never before seen. I feel no hesitation in saying that in the whole number of species in those vials he never found more than one, if any, specimen of the plum weevil, or *curculio*, the only insect which may be considered the enemy of the plum, and which has caused the abandonment of that branch of fruit-growing throughout the country. Many species of moths, flies, wasps, and occasionally a beetle or two, most of which are injurious to vegetation, though not to the plum trees, are the result of these vials; therefore they can be hung on any tree with equal, and even greater propriety than on the plum. They are of considerable service on the apple tree in capturing the parent of the core-worm, and on the cherry they will kill many moths whose larvæ are injurious to leaves. No certain remedy has yet been discovered for the devastations of the *curculio*, except constant watchfulness and labor in jarring the trees during the season of their attacks, which extends from the time the young fruit reaches the size of a small pea, to the fourth or fifth week after.

Mr. W.'s receipt for killing rose-bugs is excellent, and is equally useful for the small green lice which overrun the tender shoots of various shrubs and plants. In the last of the paragraph, however, he says: "These fellows, as soon as they have shed their yellow wings, attack horses, being the small horse-fly which is so troublesome through the summer." Some slight similarity in color or size between the rose-bug and some of our summer flies, must have led him into this strange error, for the rose-bug, as it is called, is a beetle, which, being gifted with hard and horny jaws for eating leaves, and double wings, the upper pair of which are also hard and shell-like, while the lower are folded beneath them, never changes in form, habits or appetite, after it emerges from the earth. The various species of horse-flies, on the contrary, have a long sharp sucker, or trunk, through which they suck the blood of animals; without jaws or biting apparatus of any kind. They have only two wings, which are never folded, but always ready for flight, and their bodies are of much softer consistency than the beetles.

*Andover, March, 1861. F. G. SANBORN.*

*For the New England Farmer.*

### STONE WALL vs. WOODEN FENCE.

USE OF SMALL ROCKS—GOOD ROADS—UNDERDRAINING.

Some farmers are not very much in favor of stone wall as a farm fence, because the cost is so much. It is true that stone wall would cost much more than wooden fence, where timber is plenty, and rocks are scarce; but where rocks are plenty, and timber scarce, stone wall is not always the most expensive fence. For example: suppose a farmer to have a piece of land which he wishes to enclose and cultivate; the measurement is twenty-five rods on each of the four sides; it would take one hundred rods of fence to enclose it, and there are rocks enough on it to build one hundred rods of wall; the rocks, or a part of them, at least, must be taken off before the land can be cultivated to advantage, and when taken to where the fence is wanted, they can be laid into wall for thirty-three cents per rod; the digging and drawing should not be charged to the wall, but to the land as improvements, so there are one hundred rods of wall for \$33.

To enclose the same piece with rail fence, three rails high, rails twelve feet long, and making a reasonable allowance for splice, it would take nearly one hundred and forty-four posts, and four hundred and thirty-two rails.

|  |         |
|--|---------|
| 144 posts ready to set, at 10c each.....           | \$14.40 |
| 432 rails " " " 6c each.....                       | 25.92   |
| Setting up 100 rods rail fence, at 2c per rod..... | 2.00    |
| One hundred rods rail fence.....                   | \$42.32 |

It will be seen by the above figures, that the cost of the rail fence is a fraction over twenty-eight per cent. more than the cost of the walls; that, perhaps, is more than an average, but there are many fields here on the granite hills of the Granite State that are plowed and sowed, raked and mowed, year after year, over rocks where, if they were taken out of the way, the plow, the harrow, the mowing machine and horse rake would work enough better to pay the cost. And when drawn to the place where a fence is wanted, they can be laid up into wall for less than the cost of a suitable wooden fence.

Again, some will say, "Stone wall covers up too much soil." But it should not be built on the soil; the soil should be taken off, and it should not be built so wide as it often is. Some farmers will say, "I build my wall wide to use up my small rocks." There is a better use for your small rocks than to lay them into wall five or six feet wide, on top of the soil, and have it tumble down at that. When you wish to build, dig a trench as wide as you wish your wall, or a little wider, if you like, take out all the soil (and the subsoil too, if it is a good loam,) and cart it to your barn cellar, or some place where it can be used to increase the manure heap; then dig the trench a trifle deeper, taking out enough to bank up the wall a little, to prevent the manure and soil washing into it; fill up the trench with small rocks, and build a good single wall on them, and you will have a good fence. If you have plenty of large rocks that you want to get rid of, begin by placing the largest at the bottom of the trench and fill the space, if there is any, between the large rocks and the sides of the trench with small ones, and save the remainder of the small rocks

for some other use, and the wall will stand all the better for it. If there is a piece of highway that is rough, or low and muddy, over which you cart your manure to the field, and you have a quantity of small rocks left, cart them into the road and level them off a little crowning, and as smooth as practicable, ten or twelve inches deep, or deeper, as occasion may require; cover them over with good road-gravel, level it off and rake it over as smooth as a garden bed, and with a heavy roller, roll it down hard and smooth, and you will have a piece of good, smooth and dry road, that will remain so for years; one that will not sag down in the middle, hold the water, and cause mud like an all gravel road. The water that does not run off will soon settle down among the rocks and leave the road dry. In consideration of all this, if the highway surveyor will not acknowledge your highway tax paid, you can make out a bill against the town, and if you are not satisfied that that is a paying business, you can use up your small rocks on your farm in a way that will pay; for there is another way in which small rocks are useful, viz:

### UNDERDRAINING.

On most all rocky farms, there are some cold, wet spots that would be greatly benefited by underdraining, which may be done in the following manner: Dig a ditch, from three to five feet deep and any convenient width, throwing the soil and subsoil on one side, and that below the subsoil on the other side. Fill the ditch to within fifteen inches of the top of the ground with small rocks, and cover them over with forest leaves, straw, or something of the kind, to keep the soil from sifting down among the rocks. Then with the plow, turn in the soil and subsoil that was thrown out, and there will be a good underdrain. That which is dug out below the subsoil may be spread and mixed with soil, with no disadvantage to it.

How this way of draining would compare with tile draining, I am not able to say, for I never have used tile. But I have a drain put in with small rocks, that has been in twelve years, and it has not failed to do its work yet. And I have some others that have been in but two and three years, that have nearly paid for the digging; besides, I think it worth something to have a place to put the small rocks out of sight without carting them from the field. I can say from experience, that small rocks rightly used, help to make the best of roads, but I think it pays better to use them for underdraining, and take pay in grain and grass, than it does to use them for mending roads and take pay in riding over them.

*Amherst, N. H., Feb., 1861.*

D. N.

REMARKS.—The above contains many excellent suggestions. Draining on *hard* land with stone will answer very well, because mice would not be likely to work there. In this kind of draining, it is quite common to err in making the drain unnecessarily wide, and *not deep enough*. If the drain is to be filled with small stones, one a foot in width and four in depth, would be more effective than one three feet wide and three deep.

With regard to the disposal of stones, we think there is one rule of universal application, which

is this: On all land that is not so rocky underneath as to make digging expensive, never take a stone away that is not wanted for wells, or for some other special purpose, but dig holes and place them in so that they shall not come nearer than eight or ten inches of the surface. This can be done as cheaply as they can be carted off and piled up in some other place. There are, at least, four advantages in this process.

1. The surface is relieved of them, so that they are out of the way in cultivating.

2. If not too far below the surface, they attract moisture, and are especially valuable where deep-rooted plants are cultivated in times of drought. Fruit trees flourish finely over them.

3. They are storehouses of heat, warming the soil about them, and the young roots that penetrate it, and acting like bottom heat in a forcing house.

4. So much of the land as is dug over to receive the stones, is thoroughly *trenched*, and will feel its influences for many years, whether it is cultivated or kept in grass.

#### BLUE-GRASS REGION OF KENTUCKY.

The editor of the *Boston Cultivator*, writing at Georgetown, Ky., says that section presents in many respects a striking contrast to any portion of New England.

In an agricultural view, we see little preparation for winter, at least, little that we are accustomed to see at the North. The large barns in which our farmers shelter their animals and the provision for them, are not found here. There is nothing like what we should call a barn, and but seldom any artificial shelter for stock, except stables—mostly quite rude, being often made of logs—for working horses. Neither are there stacks of hay on farms in general. The stock is supported in winter almost entirely by grass. "Winter pastures" are reserved, on which the blue-grass (*Poa pratensis*) with its long, soft leaves, covers the ground like a mat, and there is seldom any weather that the stock cannot graze. Indian corn is produced in large quantities, and the stalks and husks of this grain, shocked in the field, afford fodder for the stock when the grass may be covered with snow, which, however, is not often the case for many successive days. Corn in the ear or unhusked on the stalk, is fed to fattening stock or for other purposes, according to the wants of animals.

The country is remarkably healthy, not only for the human race, but for all domestic animals. The freedom of cattle and hogs reared here from disease, has often been commented on by butchers who slaughter animals from different sections.

**TIME FOR CUTTING TIMBER.**—We have been long satisfied that the best time to cut timber is in summer, provided it is not left in the log, but is immediately worked up into boards, rails, or whatever is intended. It dries rapidly, and be-

comes hard and sound. Cut and saw basswood in summer, and in a few weeks it will become thoroughly seasoned, and will finally harden so as to almost resemble horn. Cut it in winter, and it will be so long in seasoning as to become partly decayed before the process can be completed. No doubt, the presence of the water or sap in great abundance in winter, and especially towards the latter part, hastens this incipient decay. Rails cut and split in summer, and the bark peeled to hasten drying, have lasted twice as long as winter cut rails.—*Country Gentleman*.

#### PLANTING TREES.

Persons intending to plant trees should begin to think of the matter now, so as to be ready to enter upon the work as soon as the opening of the ground will permit. If the selection of the land, the selection of trees, the varieties to be used and the distances apart at which they are to be set, are to be left until May, when the lark is whistling on the top of the maple, the work will probably be done in such a hurried manner as to cause many mistakes. All these preliminaries may be arranged by the sitting-room or kitchen fire, and may be aided by suggestions of the women, or by those of the sons who are to assist in the labor. This is the engineering, or planning part of farming, and never should be left to be decided upon when the time has come to do the work, any more than the carpenter should decide what kind of a barn he is to build for you, when he has got his force together to raise it!

Having decided what distances shall be preserved, they may be set off, and then the holes should be dug as early as possible. It would have been better had the earth been thrown out last fall. The holes should be large—never less than *four* feet in diameter by eighteen to twenty-four inches deep, and if *six* feet in diameter, they are all the better. The earth thrown out should be turned over two or three times, so that it may all receive portions of the rain that falls, and the energizing influences contained in the atmosphere. Under this process, that which was taken from the bottom of the hole will be greatly improved. It may answer to dig the holes only a foot deep, and spade the bottom six or twelve inches; but this process is not so thorough as that of throwing the earth entirely out.

Before setting the tree, the black top soil should be thrown into the bottom of the hole, with a sufficient quantity of other black soil near to fill the hole up to within two or three inches of the surrounding surface. If it can be afforded, a little well rotted compost may be mingled in with decided advantage. In this manner a complete root bed is formed for the new comer; one favorable to excite numerous fibrous roots, because it is rich, light, and capable of attracting

both heat and moisture. In such a position, the tree will soon start into active and vigorous growth, and will be likely to continue this habit for several years, as the roots will not be soon checked by coming in contact with a hard and cold soil.

Great care must be observed not to set the tree too low in the soil. A good rule is to leave the crown of the root just on a level with the surface. If there are plenty of roots, and one or two of them come up quite near the surface, while all the others are well below, cut off the upper ones, as they will be likely to throw up suckers continually.

Trees should be selected that have been formed in the nursery, as those that have not been are materially checked in growth by frequent alterations in their amount of top. When trees in the nursery are formed, those may be selected that are much alike in size and figure, and the planter may have before him an orchard not only of good fruit producing trees, but those doing him credit in their similarity to each other, and in their symmetry of form.

Fifty trees, such as we have described, and set as suggested above, will be more productive than one hundred of an indifferent description, and set in a careless manner.

*For the New England Farmer.*

#### LEGHORN FOWLS ONCE MORE.

MR. EDITOR:—I transmit the following in answer to frequent inquiries about Leghorn fowls. The first Leghorns brought into the United States were introduced from Leghorn, about the year 1854, by the captain of a whale ship, of Mystic, Conn. The leading merits of this race of fowls are the number of eggs, of which they produce more than any other variety, the pullets commencing to lay as early as four months old; their eggs are of good size; they are hardy fowls, and rarely wish to set; their legs and skin are yellow, fine-fleshed and excellent for the table, with little waste in offal. Both sexes are lower in the leg than the Black Spanish, and their size is much the same; their whole form is good, and quite plump in the make. Both cock and hen have larger single combs and wattles than those of the Black Spanish.

The plumage of the original Leghorns was brown and reddish yellow. I obtained this breed of fowls from a gentleman that has kept and bred them in their utmost purity from the original stock, yet white individuals may have been produced from the dark colored, as we see in other breeds of fowls. This change in color of feathers may be produced by change of food and climate. Those of darker plumage are generally esteemed, and are believed to be the best breed. The white sort is rejected as being more tender, and not so prolific as the darker colored. In a lot of sixty I had last summer, of this breed of fowls, I observed three with light colored feathers. Their scarcity, as well as the high price at which they have been

held, has prevented them from coming into general use. I have sent fowls and eggs into most all the New England States and New York. I learn from several gentlemen that they have proved themselves to be constant winter layers: their eggs more than double pay their keeping, and the fowls are liked the best of any they have ever kept. Their only fault, (if any,) is their small size. The Leghorns have been crossed with the Black Spanish and other breeds of fowls which are inferior to the genuine Leghorns.

*Usbridge, Feb. 4, 1861.* JAMES McNAY.

*For the New England Farmer.*

#### FARMING FOR THE MASSES.

MR. BROWN:—I have been interested in the State Agricultural Meetings, and I am persuaded that they will tend to raise the standard of farming throughout the Commonwealth. There is, however, a class of farmers who are not reached by such meetings. I allude to a class who have limited means, and have not sufficient wealth to make such use of land as would cause its cultivation to be profitable. They have not manure, and are incapable of producing it, and have not the ability to purchase it. They thus plod on, year after year, to no profit. They have but a few acres of ground, and that is of a poor soil, and does not remunerate the laborer for his daily toil. How can he enrich his ground at less expense, than the man who has ample means to improve his ground?

When we undertake to advance the education in a community, we endeavor to reach the lower classes of society, to raise the masses, and not merely to improve our colleges and higher seminaries of learning, but begin with the first rudiments, the lowest ranks of a community. A very large proportion of the farmers in New England, or such as obtain a living from the cultivation of the soil, are poor, and find it very hard to commence the year free from debt. Some have a trade at which they work a part of the time; others work for their more prosperous neighbors, to the neglect of their own little homestead. How can the standard for such be raised. How can they procure or manufacture manure to enrich their few acres, so that instead of realizing a small income from an acre, they may obtain hundreds.

If anything can be done to reach this poorer class of the tillers of the soil, something may be effected to advance farming interests generally. As in science, so in agriculture, new discoveries will continue to be made, and capital will be required to carry such improvements forward, while a large part of a community will remain shrouded in darkness. Waste lands will still lie unimproved, and much labor will be lost through ignorance.

Eight or ten acres of land may easily, with suitable management, be made to support a medium sized family, of five to seven persons. What can be done to enlighten and help forward this large class in the various towns throughout New England? The means of procuring manure are not at hand. The necessary labor can be had, but knowledge is wanting by which this labor can be profitably employed. Means are wanting by which unimproved lands and lost labor may be made pro-

ductive of good to those of moderate wealth, and little knowledge of farming. Can these lands be enriched at an expense within the reach of those thus situated?

Will some of your correspondents enlighten our growing community on such topics as will afford all necessary information to the young and inexperienced farmer of moderate or limited means.

Boston, January 24, 1861.

D.

REMARKS.—We cannot answer your questions satisfactorily, even to ourself. Please tell us how you think the results you desire may be gained.

#### NEW PUBLICATIONS.

THE PRINCIPLES OF BREEDING: or Glimpses at the Physiological Laws involved in the Reproduction and Improvement of Domestic Animals. By S. L. GOODALE, Secretary of the Maine Board of Agriculture. Boston: Crosby, Nichols, Lee & Co. 1861.

This is a well printed book of 161 pages, written and published because the writer, in the pursuit of his business, saw the "want of some handy book embodying the principles necessary to be understood in order to secure improvement in Domestic Animals."

In the introduction to the book the author gives some striking illustrations of what he desires to teach, one of which is as follows:

Let us reckon a little. Suppose a man wishes to buy a cow. Two are offered him, both four years old, and which might probably be serviceable for ten years to come. With the same food and attendance the first will yield for ten months in the year an average of five quarts per day,—and the other for the same term will yield seven quarts, and of equal quality. What is the comparative value of each? The difference in yield is six hundred quarts per annum. For the purpose of this calculation we will suppose it worth three cents per quart—amounting to eighteen dollars. Is not the second cow, while she holds out to give it, as good as the first, and three hundred dollars at interest besides? If the first just pays for her food and attendance, the second, yielding two-fifths more, pays *forty per cent. profit* annually; and yet how many farmers having two such cows for sale would make more than ten, or twenty, or at most, thirty dollars difference in the price? The profit from one is eighteen dollars a year—in ten years one hundred and eighty dollars, besides the annual accumulations of interest—the profit of the other is—nothing. If the seller has need to keep one, would he not be wiser to give away the first, than to part with the second for a hundred dollars?

In the chapter upon the "*Law of Similarity*," he gives numerous forcible examples, which, if better understood in the rearing of animals—and in reproducing and rearing human beings too—would be of vast service to the world. Read one of them below:

We see hereditary transmission of a peculiar type upon an extensive scale, in some of the distinct races, the Jews, and the Gypsies, for example. Although exposed for centuries to the mod-

ifying influences of diverse climates, to association with peoples of widely differing customs and habits, they never merge their peculiarities in those of any people with whom they dwell, but continue distinct. They retain the same features, the same figures, the same manners, customs and habits. The Jew in Poland, in Austria, in London, or in New York, is the same; and the money-changers of the Temple at Jerusalem in the time of our Lord may be seen to-day on change in any of the larger marts of trade. How is this? Just because the Jew is a "thorough-bred." There is with him no intermarriage with the Gentile—no crossing, no mingling of his organization with that of another. When this ensues "permanence of race" will cease and give place to variations of any or of all sorts.

In the chapter upon the "*Law of Variation*," Mr. Goodale says:

Very recently, in a paper published in the *Aberdeen Journal*, a Veterinary Surgeon, Mr. James McGillivray, of Huntley, has offered an explanation which seems to me to be the true one. His theory is that "*when a pure animal of any breed has been pregnant to an animal of a different breed, such pregnant animal is a cross ever after, the purity of her blood being lost in consequence of her connection with the foreign animal, herself BECOMING A CROSS FOREVER incapable of producing a pure calf of any breed.*"

This doctrine we avowed seven years ago in an agricultural mass meeting, and were pretty soundly "drubbed" for our temerity. Thanks to Prof. NASH, then of Amherst College, who came to the rescue, we came off with flying colors, but did not take the enemy with us! It is a physiological law, as much as that of gravitation, and we are glad that one writer among us has had the boldness to declare it.

The remaining chapters are upon "*Ancestral Influence*," "*Relative Influence of the Parents*," "*Laws of Sex*," "*In-and-in-Breeding*," "*Crossing*," "*Breeding in the Line*," and "*Characteristics of Breeds*." The chapter upon the law of sex is short, as well it may be. It will require long and patient investigation, and a series of trials that will test the endurance of any man, to arrive at any plausible results on this point.

The book is greatly needed, and ought to be read by every adult in the country.

PRECAUTIONS IN USING ZINC.—A report of a committee appointed by the Central Society of Architects, in Paris, recommends "that zinc, which was at first rejected, but is now so generally used, should be applied with great care, as certain precautions, very simple, but never to be overlooked, are indispensable. Thus: contact with plaster, which contains a destructive salt, is to be avoided; also, contact with iron, which is very injurious, and liable to cause a rapid oxydation. Eave gutters should always be supported by galvanized brackets, and no gutter or sheet zinc should be laid on oak boards."

## EXTRACTS AND REPLIES.

## A NEW SUGAR EVAPORATOR.

As many of the readers of the *New England Farmer* make every year considerable maple sugar, I thought a few lines upon this subject might be interesting to them; and more especially so, as we soon expect to speak of a new boiling apparatus, that is far superior to the common pan used at the present time. It is the best article that finds the quickest sale, and at a higher price.

Maple, in its pure state, should be nearly as white as crushed sugar. The color comes from some impurity in the sap, or the manner of boiling, or from both. It is impossible to make the best sugar in the common sheet iron pans, which are mainly in use at the present time. Every one familiar with the process, knows that the sap will burn on to the sides of the pan, and is again washed off into the syrup, thereby giving the sugar a bad taste, and a dark color. This is remedied by using "Cook's Sugar Evaporator, manufactured by Messrs. Blymyers, Bates & Day, Mansfield, Ohio.

The writer used this evaporator a part of last season, and can cheerfully recommend it to all sugar-makers as being a perfect sugar-boiling apparatus. It is a shallow pan, about eight feet long, and four feet wide; and is arranged with flanges, raised on the bottom, one and a half inches high, which are left open for a space of four inches at every alternate end. A tub of sap is placed at the front left hand corner of this pan, and another tub is put at the back right hand corner of the pan, to receive the syrup. This pan is set on a furnace, made for the purpose, or can be adjusted to a common arch. It is then filled three-fourths of an inch deep with sap, and the fire is started. As soon as it begins to boil, turn the faucet and let on a supply of sap, which runs fifteen times across the pan before it reaches the outlet. After it has travelled 60 feet, continually boiling all the while, it becomes syrup sufficiently thick for sugaring off.

I can boil one barrel of sap per hour, with one fire. Hence, it will be seen that I not only save time and wood, but make a much better article of sugar.

Enclosed is a sample that I made after the 5th of April, which had no cleansing or settling, but was done off immediately after boiling.

W. Westminster, N., 1861. G. CAMPBELL.

REMARKS.—The sample before us is of unusual whiteness and purity. We have eaten salt and sugar, too, at Mr. CAMPBELL'S table, and know that he understands what he is talking about in the above article.

## MR. ROGERS' EXPERIMENT.

My attention has been attracted by the experiments of Mr. Rogers, in the application of fertilizers to his grass land. It would seem from the results stated that guano produced the best crop—about one-quarter part more than ashes. This is different from what I should have expected. I hope we shall see a definite statement of the products of these several lots, for the coming year, for it is as important to note the permanency of the effect, as the immediate activity.

Mr. R. is the right man to conduct such exper-

iments; he has ample means, and as good land as can be found in the county; his farm being situate on the easterly extremity of what has been long known as Hog Hill, because in olden times swine used to run at large, and in common over these grounds, their pasture lands. So say the Records.

South Danvers, Feb. 11, 1861.

P.

## ASHES AS A FERTILIZER.

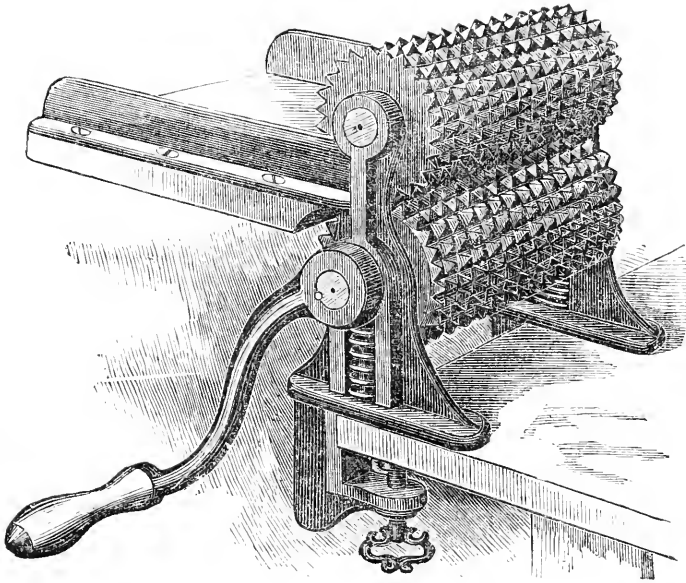
Are wood ashes a manure, or only a stimulant? Which is the best for us farmers, who live back from the sea-board, to buy wood ashes to put on our lands that need fertilizing beyond our barn-yard means, at 17 cents per bushel, or any of the foreign nostrums that are cracked up so loudly, at their common prices. Wm. IRISH.

East Ramford, Me., 1861.

REMARKS.—Wood ashes is not a stimulant, as that term is generally understood. The alkali which it contains is absolutely essential to most plants, and therefore, when you can purchase it at 17 cents a bushel, you can find nothing cheaper or more effective for the money it costs. It acts something as follows: The black earth which we cultivate contains a large portion of vegetable matter, called *humus*, and this is constantly generating fresh carbonic acid. The acid, in turn, acts upon the alkalies that are contained in the broken rocks and alkaline earths, and dissolves them, makes them soluble liquid, so that the roots of plants can take them up. Liebig expresses it—"these changes"—that is, the changes in the rocks by being broken and pulverized—"consist in the giving of a soluble form to the alkalies and alkaline bases by the combined action of *water* and *carbonic acid*."

"The first colonists," he says, "of Virginia found a soil filled with alkaline substances, from which harvests of wheat and tobacco were obtained for a century from one and the same field, with the aid of manure; but now, whole districts are abandoned and converted into unfruitful pasture land, which, without manure, produces neither wheat nor tobacco. From one acre of this land there were removed in the space of 100 years 12,000 lbs. of alkalies, in leaves, grain and straw."

MASSACHUSETTS HORTICULTURAL SOCIETY.—The first paper in the Report of the Annual Transactions of this Society, is on "*Ornamental Gardening*," and was prepared by our old correspondent, J. F. C. HYDE, Esq., of Newton. It is the report of the Committee appointed to visit such places as they thought fit to look at, and to remark upon them. Reports were made from the Committee on *Flowers*, on *Fruits*, on *Zoology* by Prof. JENKS, and on the *Library*. The Address of the President, JOSEPH BRECK, Esq., was a good one, containing touching allusions to recently deceased members of the Society.



A CYLINDRICAL MEAT-MASHER.

"Is that thunder, Jane?"

"No, father, I think not—it seems to come from the kitchen."

"What *can* they be doing there, to make such a noise? I thought it was a succession of thunder-claps. It jarred the whole house."

"But it don't thunder often in the winter, father; besides, it's all bright sunlight now."

"Well, child, go to the kitchen, if you think the noise came from there, and inquire what the matter is."

So off went dutiful Jane to the kitchen, and there found that "Biddy" had been pounding a piece of a well-knitted beef creature in preparation for dinner, upon a large table, which was, in itself, a pretty good drum. No wonder there was a racket in the house!

Jane came back, reported the fact, and at the same time handed her father a circular describing *Whittemore & Brother's* "Patent Cylindrical Meat Masher," which he took, adjusted his spectacles, and read as follows:

"This machine is intended for mashing beef steak, to make it tender for cooking. It produces twice the effect of pounding, makes the toughest meat equal to the most tender, and will do its work in one-tenth the time required in pounding, one minute only being required to mash eight or ten pounds.

It meets the unqualified approbation of all those who are using it, and the manufacturers have as yet been unable to supply the demand.

The first premium was awarded to this ma-

chine by the Massachusetts Charitable Mechanics' Association, at their fair held at Boston during the fall of 1860, with the highest recommendation of the committee and the press."

We are glad to learn that some means have been devised to accomplish two things, viz.:

1. To bring a beef-steak into such a condition that a person with good teeth can eat a moderate slice in thirty minutes.
2. That this may be accomplished without the aid of a lignumvitæ pestle, a pine table, and such a noise as would drive a sensitive man out of the house.

We have not tried the Meat Masher, but from turning it a few times, and contemplating the sensation we might have if our finger were once crushed between its iron teeth, we are strong in the belief, that the muscular portions of all bovine structures must become pulpy and tender under its power.

**HOG CHOLERA.**—A disease to which this name is popularly applied, exists in this vicinity, and is proving quite disastrous. One resident of Cranston has already lost forty hogs and has more sick with the disease. Another, a resident of North Providence, has lost more than fifty within a short time, and others have lost smaller numbers. It is probably an infectious, epidemic disease, and very little can be expected from treatment or from precautionary measures. At the same time, its severity and fatality are undoubtedly aggravated by the food, and local surroundings of the animals.—*Providence Journal*.

## FLOWAGE OF LANDS.

The Legislature of 1860 passed an act that the dam across the Concord river, at North Billerica, should be decreased in height thirty-three inches, and that this might be done at any time after the first day of September of that year. A commission, consisting of Messrs. HUDSON, of Lexington, BELLOWS, of Pepperell, and BIGELOW, of New Bedford, was appointed, and it was supposed they would proceed at once to lower the dam. Before they did proceed to that work, however, the dam-holders obtained an injunction from the Supreme Court, and no decision was had until the early part of January. In the meantime fall elections were corrupted by the test question, "Will you pledge yourself to urge and vote for the repeal of the bill directing the dam to be taken down?" If the candidate stated that he could not pledge himself to vote to repeal a measure which he had not investigated, and would not so pledge himself, some strange influence was found to throw him overboard, and bring some more servile and subservient tool into his place. When the elections had taken place, an anonymous pamphlet appeared, and found its way to the Senators and members elect, filled with gross misrepresentations of the facts in the case, and we are informed that most of the members were visited by the dam-holders themselves, or their agents. That a system of the most shameful and unjustifiable "lobbying" has been going on through their agency during the entire session is manifest to those who have occasionally looked in upon either house.

Petitions were also obtained in aid of the application to repeal, based upon the false statements in pamphlet that was *ashamed to own a name*, and these statements and the request to repeal have been urged upon the Legislature with an obstinacy which nothing but a lavish expenditure of means and a sinking cause could secure.

The present Legislature, early in the session, appointed another Joint Committee, being the third which has been appointed in this case, and for three or four weeks past they have been hearing the parties. Some new evidence has been introduced, but none that materially changes the aspect of the case.

On Friday, March 1, the case for the meadow owners,—the *meadow hay men*? as one of the witnesses of the dam-holders insolently termed them,—was argued before the committee and a large audience at the State House, by Judge FRENCH. During the three and a half hours which he spoke, he scarcely alluded to the testimony of the witnesses called by the land-owners, but based his arguments almost entirely upon the admissions of counsel for the dam-holders, and upon the sur-

veys made by their own agents. A more compact, luminous and logical argument we never listened to. It held the committee and audience in the closest attention, and with evident signs of gratification during the whole time. But the effort was something more than a logical argument—it was a *mathematical demonstration, proved by their own surveys*, that the dam is the *principal cause* of the ruin of some eight or ten thousand acres of the best lands in the Commonwealth! This fact he made as clear, as the fact is clear that water will run down hill by its own gravity. The following are the principal points contained in his argument.

1. The act was passed after the most deliberate consideration.
2. In accordance with the prayer of the petitioners.
3. In accordance with familiar principles of Legislation, and the true spirit of progress.
4. The Act is adjudged by the Supreme Court to be constitutional.
5. A great injury is suffered by the land owners and by the public.
6. The dam is the principal cause of the flowage, and a fatal obstruction to any improvement.
7. The dam was created by improvident legislation in chartering the Middlesex Canal Company.
8. The land-owners are in no fault.
9. The Commonwealth can always *afford* to be *just* to her citizens.

The effort was a brilliant one in matter and manner, and proves that Judge FRENCH will scarcely stand second to any in the State as an advocate, and in point of legal ability.

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DIGESTION OF THE FOOD OF CATTLE.—"Practice with Science" is the golden motto of the Royal Agricultural Society of England, and this is just the kind of testimony now being received in favor of Thorley's Food for Cattle; for agriculturists and other owners of stock are, by the successful use of this condiment, beginning to experience that the value of food depends upon how it is digested. Chemically, its constituent elements may be of the highest value, but if imperfectly digested, what is its value to the animal which eats it? During the past month, four first class prizes have been awarded to Joseph Thorley, (the Inventor and Sole Proprietor of "Thorley's Food for Cattle,") for his discovery of a condiment which enables animals of all kinds to extract more nourishment from hay and straw seasoned with it than from unseasoned food, although the latter may contain a much greater amount of alimentary matter.

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THE MOUNT VERNON PEAR is the name of a new variety described in the *Gardener's Monthly*, and considered one of the best pears of the season, which is last of Oct. and beginning of Nov.



*For the New England Farmer.*

### THE CULTIVATION OF FLAX.

MR. EDITOR:—In these days of political turmoil, it would certainly be wise policy to be as independent as possible, by introducing and promoting the cultivation of flax as a substitute for cotton; which, in a few years, would reduce the consumption of that article, in these Northern States, two-thirds, at least; and ultimately lead to its final exclusion from our manufactures.

Having resided forty years in some of the principal flax producing countries of Europe, I consider myself pretty well posted up in all the details of its cultivation, and subsequent treatment; and I am convinced that flax of the very best quality can be produced in New England, and in a large majority of cases would be a remunerating crop to the farmer, could he be sure of ready markets for it, even at the low price of ten cents per lb.

Judging from my own experience in New England, though on a small scale, as well as that of my neighbors, I arrive at the conclusion, that considerable more flax, and of superior quality, can be produced per acre, on the generality of New England soil, than in any parts of Europe where I have seen it cultivated, and at comparatively less expense.

Now, if its production, in many parts of Europe, be a profitable, or even a fair remunerating business to the farmer, where he has to pay from twenty-five to fifty dollars per acre of yearly rent for his land, why should it not be more so in the United States, where land more suitable for its production can be had at from five to ten dollars per acre, and even less in many places of the country; and seeing that machinery has been invented for converting the flax into cotton, I am confident, that we farmers of the Northern States can produce an ample supply of the raw material to keep all our mills running throughout the year. Both flax and hemp we are able to produce in any quantities, and wait only for the demand to commence operations to supply all domestic, and even foreign markets to some extent.

As I intend, next season, as a beginning, to appropriate several acres to the growth of flax, any information regarding the market value of that article, (and from whence we derive our supply, for the present demand,) from the Editor or some of his numerous correspondents—through the pages of the *Farmer*—would confer a favor on a constant reader of that valuable paper, who would be willing to reciprocate the favor by future communications on this interesting and all important subject.

T. C.

*Beverly Farms, February, 1861.*

A SHEEP FARM IN ILLINOIS.—From an account published in the *Prairie Farmer*, of the farm of a Mr. Daniel Kelly, in Wheaton, some twenty-five miles from Chicago, we take the following extracts, as showing an instance of profitable farming.

Mr. Kelly removed here from Vermont, where he "tended his father's flocks." He is an old shepherd, therefore. His father's original flock of ewes were imported some time between 1821

and 1826, by Crowningshield, of Long Island. This original flock of 40 ewes were Negrettes—belonging to one of the classes of migratory Spanish sheep. Since coming into the possession of the Kellys, they have been bred on Jarvis & Humphrey's importations of Paular stock, extensively.

The present flock of Mr. Kelly, on the home farm, is 460 head—about the same number he wintered last winter. He has sold from his flock during the past season over \$7000 worth of sheep and wool. And he regards his flock worth more money to-day than it was a year ago—he having saved the best all the time.

### TRANSACTIONS, 1859.

The public appreciation of the value of the labors of the Agricultural Society of New York could scarcely be manifested in any way more distinctly, nor could praise be given in any manner less offensive to real modesty, than is done by the fact that, throughout the United States, the common word Transactions is, by common consent, employed by agricultural writers to mean one or more of the nineteen volumes which have been published as the "Transactions of the New York State Agricultural Society." The volume for 1859 was received by us a few weeks since, from the Secretary of the society, B. P. JOHNSON, Esq. Its eight hundred pages give some of the results of the vigorous activity of an association whose Treasurer's account for the year is balanced by the generous footings of \$24,410 26, and of whose official members the Executive Committee could truthfully report:—

"All the officers of the Society, with one exception, were present during the fair, and were fully employed, from its commencement to its close, in the discharge of their duties, and evidenced the great interest which is being taken in the discharge of the duties devolved upon them by the Society."

We congratulate the working portion of "the officers" of agricultural associations throughout the wide world, upon this record by the Executive Committee of the New York Society. It should be reduced to an "item," which, as it "goes the rounds" will cheer the diligent and rebuke the negligent among agricultural officers everywhere. Perhaps we may add that one of the Vice Presidents of this Society is located in each of the eight judicial districts, and that the other officers represent the various sections of a State, of whose extent we have received our impressions from journeying steadily night and day for over a week between Albany and Buffalo, and for many hours, though hurried on by steam, between New York City and Rouse's Point.

We should naturally expect that the annual publications of the Agricultural Society of such a State, with such funds and such members, would

be a valuable book. The New York Transactions are essential to every considerable American library, and are fast becoming so to those of Europe. We are informed by the Secretary, that during the year an application was made by the Russian government for a set for the Imperial Library, and that constant demands are made for them by the governments of Europe. And he has the most gratifying assurance that they serve not only to make our country more generally known and appreciated, but are the means of introducing abroad our most valuable farm implements to such an extent as to make this trade a very important item to our manufacturers.

The first report in the volume before us, is that of a committee of five,

#### ON THE DEATH OF MEMBERS,

in which a brief sketch is given of three of the former officers of the Society, all of whom died in December, 1859. We think favorably of this feature of the work.

#### ANNUAL MEETING AND ADDRESSES.

The election of officers and the other mere business of the society occupy but a page or two of the one hundred which we designate by the above title, and which include addresses by Hon. JOHN A. DIX, and by A. B. CONGER, the retiring President. Among the subjects discussed was the question, "Are the crops in New York decreasing?" Statements to that effect, so current in agricultural publications, were indignantly denied, and the testimony of farmers present was, that "We are improving in our agriculture. We are raising more food than ever before." The valuable reports of the Committees on Farms and on Dairies were made at this meeting. Sheep-power for churning was recommended as far preferable to dog, water, or woman-power. The writer says he knew of one sheep being used for churning until he was eighteen years old, and that one sheep will churn the butter from twenty cows. The powers may be made on the endless chain principle, or the circular wheel.

"A sheep will churn two or three times a day, even in warm weather, without inconvenience; is much less expensive to keep than a dog, as its food is mostly grass; and it will produce more wool than the ordinary sheep of the flock. Select those of the coarse wool variety, as they will stand the heat well, and are inclined to be mild in disposition. They soon learn to drink butter-milk and grow large and fleshy. Procure a chain fifteen or twenty feet long to fasten them; change their place to feed every day; and when the churning is over in the fall, let them go with the flock, and they are no more trouble until wanted in the spring."

#### TILE DRAINING.

Premiums are awarded to T. C. MAXWELL for a little over *fifty miles* of drain, at a cost of

\$5000, on nearly two hundred acres, and to W. T. & E. SMITH, for *sixty-five miles*, at a cost of \$100 per mile, or 31 cents per rod.

Extracts from Reports of Committees on award of premiums, and from replies to queries of the Secretary in relation to the wheat midge, and to statistics of crops, are interesting and valuable.

#### AGRICULTURAL COLLEGE.

After "Some Glimpses of Agriculture in Great Britain," by Mr. TUCKER, of the *Country Gentleman*, we have a complete history of the Agricultural College, at Ovid, Seneca county. The charter of this college was granted in 1853. Is it not strange that the friends of agricultural education in the Empire State should be obliged to read the following paragraph in the "Annual Report of the Trustees," January 10, 1860.

"To this institution the eyes of multitudes are turned, from every State of the Union. It seems scarcely possible, when so near the attainment of our object, that the needful amount for completing the work should be wanting, in a State where so much wealth abounds."

#### WINTER PREMIUMS.

Agricultural societies, we believe, are very often winter-killed. They undertake to den-up, like bears which do nothing but suck their paws all winter, and the result is that, unlike the bears, such societies never wake up at all. The New York Society makes no attempt to hibernate, in this sleepy manner. It is wide awake in the winter season, and busy, too, as well as during Fair times. We have already noticed its Winter Meeting. In another connection we find a list of Winter Premiums awarded, to the amount of some seven hundred dollars, mostly on such grain crops, &c., as could not be properly presented so early in the season as the usual time of holding the Autumnal Fair.

Abundant, however, as are the labors of this society, the volume before us contains many valuable papers besides those which are, strictly speaking, a part of its transactions. Among these we will barely name an elaborate article from the Journal of the Royal Agricultural Society of England, entitled "Experiments with Different Manures on Permanent Meadow Lands," "The Plains of Long Island," &c., &c.

#### ENTOMOLOGY.

The society employs Dr. FITCH to investigate the habits and to report on the best methods of destroying injurious insects, and of avoiding their depredations on the crops of farmers, in this "land of insects," as the Doctor thinks America has been truthfully denominated. And he adds that "the losses which we sustain from these pests, immeasurably surpass everything of the kind to which they are subject in Europe." His Sixth

Report on Insects, in consequence of sickness, was not in readiness for this volume. Two of his addresses are, however, published—one "On our most Pernicious Insects," and the other "On the Curculio and Black Knot on Plum Trees." The latter we believe is altogether the most correct description of that insect yet published.

In all parts of the volume we notice complaints of bad weather and short crops. The Secretary says: The ravages of frost have been very extensive, and the destruction of the grass crop, in many portions of the State, has very materially diminished the dairy products in quantity, and has very considerably affected the quality of the butter, in some portions of the season. The corn and buckwheat crops have also been seriously affected, as well as the spring crops generally, in many sections of the State; and, in many instances, these crops did not recover so as to give the usual return. But it is a fact of no little interest, that, so far as returns have been received, it is most evident that where attention has been given to drainage, thorough cultivation and manuring, the crops have suffered much less than in those cases where these precautions have been neglected.

From the statistics of crops, we copy the following, omitting fractions of bushels:

|                        | Returns received from | Average 1859. | Average 1858. |
|------------------------|-----------------------|---------------|---------------|
| Winter wheat.....      | 20 counties.          | 19            | 13            |
| Spring wheat.....      | 18 "                  | 16            | 13            |
| Corn.....              | 17 "                  | 25            | 40            |
| Rye.....               | 15 "                  | 14            | 16            |
| Barley.....            | 16 "                  | 25            | 20            |
| Hay, per acre, lbs.... |                       | 2000          | 3000          |

SURVEY OF ONONDAGA.

A minute history of one of the richest agricultural counties in the State, with suggestions as to the best means of managing its various soils, fills 134 pages of the volume, accompanied by a large Geological and Topographical Map, and various cuts illustrating the modes of making salt, and of raising "the abominable weed."

COUNTY AND TOWN ASSOCIATIONS.

Proud as the State Society may well be of its own labors, some one hundred and fifty of the pages of this volume of its Transactions are devoted to reports of perhaps half that number of county and town Societies. Such abstracts are given of the reports of these societies as the Secretary supposed would furnish evidence of the present state of agriculture in their respective localities, but nearly all awards of premiums are omitted. Thus room is found for quite a number of the addresses which were delivered before these associations. We have barely glanced over these abstracts, seeing enough, however, to convince us that they are the "very cream of the matter." The report from the town society of Hartland,

Niagara county, thus alludes to an experiment in drainage.

"North of this ridge, [the famous ridge-road of that section, at this point, some six miles from Lake Ontario,] the land is low with extensive swamps, and wet land of about 5000 acres, which is now being reclaimed by cutting a ditch six miles long through the town, at a cost of \$14,000, the expense of which is paid by a tax on the land it benefits. The ditch is nearly completed. Already has the work of clearing the swamps commenced, and we shall soon have hundreds of acres of fine muck meadows where now the alder and wild rose, with their associates in such localities grow in profusion."

MUSEUM AND LIBRARY.

A Catalogue of Implements, Machines, &c., in the Agricultural Museum, and a list of Additions to the Library, are given, and the volume is closed with papers on the "Cattle Disease of Massachusetts."

For the *New England Farmer*.

THE AIR PRESSURE CHURN.

FRIEND BROWN:—A few suggestions present themselves to me, in looking over the scale of prices of the *New England Air-Pressure Churn Co.*, the first of which is in reference to the high price asked for it. It would strike most any one at first glance as being very much more than men of moderate means would think they could afford to pay, notwithstanding the alleged superiority of the article. This class of men are the greatest patrons of such articles, and it should be the aim of those who wish, successfully, to introduce an improvement, to have an eye to the means of those for whose use it is intended, as well as to their own profit, which, in the long run, will be found in carrying out the motto of quick sales and small profits. I have no doubt but I might readily find several purchasers for the churn, providing it could be brought within the limits of a moderate remuneration to the manufacturers. None can very well doubt the superior value of the churn over most, if not all that have preceded it, and its ultimate success. Still, would not that success be very much hastened, and the proprietor's interests be promoted by heeding the foregoing suggestions?

Another thought occurs, in reference to the difference in the cost of iron and brass hoops. Had I ordered a churn finished off nicely with brass hoops, I should never have dreamed that it would cost me from two to four dollars more (according to size) than a plain iron bound one, had not that fact appeared in the advertisement. It may be that I am in error here; if not, I think it unwise to exact an extra profit for finishing up the article in a neat and tasty manner. Allow me, also, to suggest an improvement, as I conceive, in the construction, or rather the manner of putting in the head or bottom of the churn. As now built, it is after the usual mode of making casks, leaving a channel or crease all round the edges of the head, which is not so readily cleaned as if the bottom was put in the manner of shaker pails, &c.

I have used, for a number of years past,

*Crowell's Patent Thermometer Churn*, which my folks are well pleased with, as it is easy to operate, brings the butter quick, and is easily cleaned, which last item is a very important consideration with those making butter. We have, also, one of *Johnston's Patent Churns*, which has been in the house over a year without being used, as it appears to be such a herculean task to clean it properly that my wife will not have it used.

In what I have said respecting the above churns, I do not wish to convey the impression that I have any other "axe to grind" than a desire to promote inquiry on the part of dairy farmers for the best churn for their use, which I conceive to be that which will give us the most good butter in a reasonable time, with the greatest ease of operating and cleansing after being used.

Rochester, Jan. 30th, 1861. K. O.

HOPS.

Prices have ranged low since 1855. Until this season, the crops of 1855, '56 and '57 averaged not exceeding 6 cents, first sort.

The market for '58, hops opened at 10 a 12½c, but afterwards receded to 6 a 8c. The market for 1859, hops opened at 12½ a 14c; but in the summer of 1860 receded to 8c. The crop of 1860 was mostly purchased of the growers before coming to market; first prices were 10 a 12½c, but owing to a large export demand, prices advanced to 30, 35 and 40c. Then the panic in the money market, together with the falling off of the rates of exchange, and the difficulty of negotiating foreign Bills of Exchange, stopped the export demand, and prices declined to 25 and 30c, at which prices the market is now firm. The price of the growth of 1859 is now 12 a 16c; growth of 1858, 6 a 8c; growth of 1857 and 1856, 3 a 6c. The price of these older growths has been higher, but has declined for the same reason above given.

The stock of hops, new growth, in this market, and to come to this market, will not exceed 700 bales.

The quantity of hops exported the past year, and to the 20th ult., is about 35,000 bales;—28,000 bales of the growth of 1860, and 7,000 bales of older growths; and with no further export demand, the prices will not be less, but will undoubtedly improve as the season advances.

If the crop of 1861 is good, and there is no export demand, it will undoubtedly pay remunerative prices to the growers.

We give below the annual statement of Walter Blanchard, Inspector General of Hops.

INSPECTION OF HOPS IN MASSACHUSETTS.

Statement of the amount of Hops inspected in the State of Massachusetts, agreeable to and in accordance with the Law of said State, from Jan. 1st, 1860, to Jan. 1st, 1861:

|            | 1st Sort.     | 2d Sort.    | Refuse.     | Total.       |
|------------|---------------|-------------|-------------|--------------|
|            | Bales. Lbs.   | Bales. Lbs. | Bales. Lbs. | Bales. Lbs.  |
| 1856.....  | 169 31,676    | .....       | .....       | 169 31,676   |
| 1857.....  | 423 80,320    | 57 9,507    | .....       | 480 90,227   |
| 1858.....  | 131 23,796    | 44 8,157    | 10 2,169    | 185 34,113   |
| 1859.....  | 647 122,439   | 143 27,467  | 27 5,719    | 817 155,616  |
| 1860.....  | 378 73,935    | 78 15,327   | 13 2,756    | 467 92,048   |
| Total..... | 1,748 32,2187 | 322 60,858  | 50 10,635   | 2118 403,680 |

Average weight of whole number of bales, 190½ lbs., nearly.

WALTER BLANCHARD,  
Inspector General of Hops.

LEGISLATIVE AGRICULTURAL SOCIETY.  
[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The seventh meeting of this Society was held in the Representatives' Hall on Monday evening, and was attended by a very large number of farmers, and others. The meeting was called to order by Col. WHITE, of Petersham, who introduced Mr. D. ORLANDO FISK, of Shelburne, as the Chairman of the evening.

On taking the chair, Mr. Fisk said that at the close of the session of the House in the afternoon he was notified that he was expected to preside at this meeting. The Committee had hoped that His Excellency the Governor might find leisure and preside, but he had informed the Committee that it would be out of his power to meet with them.

He then announced the subject for discussion as "*The most advantageous methods of improving pasture and meadow lands.*" The first clause of the subject, the improving of pastures, may be a subject in which some of our agricultural friends may not be much interested on account of their having no pastures, and desiring none, having some of the best farms in the State, and keeping mostly cows and oxen, and soiling them, making an almost incredible amount of manure, and dispensing entirely with the pasture, and making all their land fit to till. Not having an acre of land but what they plow or mow, and by their increased amount of fertilizers producing such crops as perfectly astonish farmers of moderate means and poorer soils; yet while, said he, they are pursuing this very profitable mode of farming, and setting an example worthy of all praise, they need not be, and are not, excluded from a participation in the discussion of the evening. The second clause of the subject for discussion certainly comes home to this class, and the assembly would surely expect them to tell how they have made their meadows what they are.

He said that the pasture, to most of the farmers in Massachusetts and New England, is the right arm, and a good pasture is the one thing needful for every stock farmer. As our pastures are wearing out year by year, and deteriorating in quality and quantity of feed by over-stocking, by the bleak winds and severe frosts of our long winters, and by many other causes, it certainly behooves us to look for a remedy, and to inquire diligently what can be done to renovate and improve them.

He would say that much every way could be done. In the first place he urged the ceasing to over-feed them, and where a pasture has been over-fed and hard pressed, to put in only two animals where there usually have been four, and occasionally, perhaps once in seven years, leave a pasture unfed entirely, cutting down all the brush

and coarse grass, and leaving it to decay on the ground. He advocated the leaving of all land that would not pay for thorough fencing to grow up to wood. A good stone wall is the right kind of fence, and when it is once built the material is always at hand to repair any breach that may be made in it. It does not pay, said he, to split rails for fences in Massachusetts, where good timber is so valuable.

Many of our pastures in Franklin county are filling up with white weed, a kind of feed which cattle or sheep are not particularly fond of, to say the least. When the land is level it can be plowed to great advantage, and by seeding to clover, and the application of plaster, and turning everything under that grows, for two or three years, he said they could double the value of almost any poor pasture, and if convenient to fence it, they raised a good crop of buckwheat, and thus got a quick profit, but all this time they took care to keep the clover growing.

He considered the system of soiling to be the death of the pasture if extensively practiced. If all the stock that are fed or pastured on the land remain on it all the time, night and day, it will hold its own tolerably well, if not stocked too high or over-fed. He called attention, in closing, to the fact that the farmers in the western part of the State noticed that the best pastures were upon the eastern and southern slopes, sheltered by forests on the north and west, and the best farmers there were coming to think it best to preserve these forests, and were even now planting maple, and other trees, for the purpose of affording shelter to the lands.

T. J. PINKHAM, of Chelmsford, thought the Chairman had taken the correct view of the cause of the wearing out of farms, or rather pasture lands. He said our lands were sick and debilitated from over-stocking, and this was true of all kinds of lands. All the matter that was ever created still exists, but we have taken it from the western part of the State to the east, and we are now doing it from the Western States, and if this is not remedied, they will be as poor as our State is. He did not believe that to increase the number of our cattle was to increase the value of our land.

C. L. HARTWELL, of New Marlboro', spoke of the prevalence of brush, fern, &c., in the old pastures in the western part of the State, and wished to know the most advantageous method of clearing the land of them. Thousands of acres in the Commonwealth were covered with hardhack, and although among these the ground is very fertile, cows will not feed, and an economical method of destroying these would be of great benefit to farmers. Fire will not kill them, and mowing will not effect the purpose, and these and white

weed are a great drawback to improving our pastures. He thought the cause of the deterioration of our pastures was more in the division of our lands than in over-stocking. Where cattle feed the most, ferns, briars, &c., do not grow, and he thought the evil of them might be, in a great measure, remedied by dividing our pastures into small lots, and changing cattle round.

Mr. BROOKS, of Princeton, had had forty years experience in farming, but he thought it took more than that time to learn the business. He had tried several methods of getting rid of the evils complained of by the previous speaker. He had burned the "pod" and then scattered seed and sometimes plaster over the land, and by this means had got rid of it. In relation to hardhack, he had eradicated it by mowing two or three years. He considered it was a great advantage for a farmer to divide his lands into small lots, as by this means warmth was derived from the walls, and as the snow always lay in greater quantity under the walls, and as all knew there was much fructifying matter in snow, he attributed the fine vegetation that was always observed under walls to this cause. Speaking of the extra work in plowing small lots, he said from his experience he had found that these could be plowed as cheap in proportion as large ones. We want manure on our lands, but he said he was satisfied we could carry off one-quarter of the products of our farms and they would not deteriorate, and if we could not keep our cattle on the pastures three-quarters of the year we must furnish fertilizers to the land from some other source. He knew that, in his section, the farmers had mostly some money at interest, and as it was a fact that half the men who were using this money failed every twenty years, he knew it would be better for the farmers to use their money on their land, and they would be sure of a profit instead of an entire loss. He thought that money spent judiciously on pasture lands was an excellent investment. The speaker said that, thirty years ago, he had a pasture which one of his neighbors valued at \$20 per acre, and it returned him at that time \$1,20 simple interest; now the same party estimated the same land to be worth \$200 per acre, and with an investment of \$50 per acre it paid the interest on the present value. He urged every man to renovate what he could—the more the better, and related an anecdote in illustration of the paying advantage of this.

Mr. Brooks spoke of the benefit of draining, and thought this could be done well and cheaply with stones. Speaking of manure, he said a bushel of corn would produce more manure than would grow another bushel, and he argued this from the fact that a ton of hay fed to an ox will

produce more than a ton of grass plowed into the ground. He said further that one-quarter of the fructifying matter of a piece of ground was in the atmosphere. One ton of hay he knew would make 24-100 tons of manure solid, and as much more liquid, and one cow will make 30 tons of manure, which he considered too much for any acre of land in the State.

Mr. BUSHNELL, of Sheffield, being called on said that, from several years' experience, he had found that sheep would improve pastures more than anything else. If briars and bushes were cut once and a flock of sheep turned into the pasture they would prevent their growth by cropping the young shoots and eventually killing the roots. He thought that all farmers had to do to improve their pastures was to keep sheep, and by this means his land had improved fifty per cent. In plowing lands, sheep are excellent, and on the large quantity of lands that cannot be plowed sheep would undoubtedly improve them. He would advise every farmer to keep sheep, as they were profitable in every sense.

Mr. PINKHAM thought we produced too much now, and thus reduced the price of everything; whereas, if there was a smaller production the farmer would be benefited. He wanted to see the legislation for the farmer stopped, as he thought this was the most potent cause of the poor position of the farmer. Fancy farmers, said Mr. Pinkham, want to increase the productions so as to make living cheap, but he thought the way to improve pastures was to give a profit to the farmer, and return back to the soil what was taken from it. The gentleman then spoke of potatoes and apples, but being reminded that he was speaking on matter foreign to the subject, he resumed his seat.

Mr. WETHERELL, of Boston, said that pastures can be divided into two classes, those that can be cultivated and those that cannot, and for the latter he recommended turning in, and the use of plaster. He spoke of a man in Harwich who had land with brush so high that it would hide a cow, and he cut it down and burned it, and after he had scattered 100 to 200 pounds of plaster to the acre, it furnished the best kind of pasture, until now a dairy is fed a great portion of the time from it. He strongly recommended the use of plaster, and on lands where this would not do, he thought guano or the superphosphates would be good, and in relation to guano, he repeated his former statement that he was confident it was a fertilizer.

Mr. PROCTOR, of Danvers, said he had labored on one farm for 20 years, consisting of 60 acres. This was divided by stone wall into three lots, and it was not as good pasture as there was in the eastern section of the State. It had never been

overstocked and had always been improving. Most of our pasture lands, said he, cannot be plowed, and it is not expedient to fertilize them, as it costs too much, but if a farmer changed his pastures and did not let them be too close fed, and spread the droppings of the cattle in the spring, they would never grow poor. He thought the manure from sheep the richest that could be applied to the land. He mentioned the case of a neighbor of his, who, for a premium offered by the Agricultural Society, improved thirteen acres of land. He turned into the lot twenty sheep, and in three years time they had killed off all the wild shrubs and bushes, and now the land was as good as any around it, and the premium was awarded to him. He urged gentlemen to confine themselves to the question under discussion.

Mr. LATHROP, of South Hadley, said that in his part of the State plaster produced a greater effect than in any other section. He purchased his farm thirty years ago, and it consisted of 600 acres. He had found it hard then to get enough feed off it to support the cattle necessary to carry it on, but he applied plaster to it, and then he found he could not buy cattle enough to crop the feed. When he took his farm he kept a flock of 300 or 400 sheep, but he found his land deteriorating so much that he went to using plaster, and the effect was wonderful, and now he applies 100 lbs. to the acre once in two years. He keeps entirely fallow cows and beef cattle, and they are in the finest order.

Mr. HOWARD, editor of the *Cultivator*, said he had been often on Mr. Lathrop's land, and it was an elevated alluvial soil of the Connecticut, the river having left the bare clay partially covered with sand, and he believed it to be a fact that wherever this description of soil crops out plaster is of immense benefit.

Mr. FEARING, of Hingham, said he had a farm of 28 acres in Hingham, on which he had fed sheep and cattle for 40 years, and had never applied manure to it. Although a part of it was rocky, it was in excellent heart now, and the best in Hingham, and would bring \$50 to \$55 per acre at auction to-day. He recommended good fences and mowing bushes and briars and burning them, then stocking the pasture very heavily one, two, or three years, and they would take care the bushes and briars did not grow again. He had used 20 acres this way last year, and it would do well. He thought fertilizers too expensive, and plaster and lime had no effect on lands on the sea-coast, and he said he would not allow any man to cover his farm with it, even if he would do it gratuitously.

Mr. MELVIN spoke briefly of plowing in crops, recommending the plan on the ground that we had worked our farms too hard.

Mr. WHITE, of Petersham, had been a farmer 32 years, and the most successful course he had pursued was the use of the plow. He did not agree with the Chairman in cropping with buckwheat, as a neighbor of his had done so until he could not even get a crop of that. For three years the speaker said he had plowed in oats, and the crops remunerated him for all the expense. All he had done to his land for 27 years was to turn in green crops and use 1½ bushels of plaster to the acre. He did not understand sheep husbandry but had his doubts of its great profit all over the State.

It having been announced that the subject for discussion at the next meeting would be "*What breeds of cattle are best adapted to the agriculture of this Commonwealth?*" the meeting adjourned.

#### OXEN THAT HAVE BEEN WORKED MAKE THE BEST BEEF.

Animals that have not been worked, have not, therefore, taken so much exercise, nor made much of any involuntary exertion. They have *not* worn off their tissues, nor thus created the necessity of their renewal. They have *not* breathed so much air, and its necessary proportion of oxygen, for the same reason, viz., because the rate of breathing as well as that of wear, depends upon, and is naturally proportioned to the amount of activity or exercise.

The purification of the blood depends upon the rate and completeness of its renewal; and its renewal is regulated by the degree of exercise, controlling the quantity of supply of oxygen. Hence it will be evident that those animals which at a given age have made the most active and largest degree of exertion, must have had their muscles most worn, and their blood oftenest renewed and purified.

Animals that walk at the rate of two and a half miles per hour—about the pace, or what should be, of cattle at work—inhalate and pass through their blood twice the amount of air consumed by those standing still, in the same length of time. This involves double the amount of excretion of worn off, and therefore effete matter to be expelled from the system, commingled with and contaminating an equal volume of exhaled air, or poisonous exhalations, from both skin and lungs. The greater the proportion and amount of oxygen consumed, the more complete is the renewal of the blood, by the corresponding expulsion of its impurities; and as is the arterial or red blood in quality and purity, so must be the muscular flesh which is formed by its liquid and solid deposits, as a matter of cause and consequence.

On the one hand, then, we perceive that cattle that have *not* worked come to the stalls with blood and meat that have not been so often renewed, purified, and changed. And such animals having more effete matter in their circulation, the latter is more sluggish, and digestion and assimilation less rapid. When thus put up they are less capable of rapid change and nutrition, and gain less rapidly in a poorer product of beef. On the other hand, previously worked animals come

in with purer blood, and firmer, better muscles; with better appetites, and healthier digestive power; they accumulate substance faster, because of their better blood and digestive power. And, with a purer and healthier muscular structure for its foundation, to begin with, oxen and steers that have been worked and therefore had their tissues renewed and purified, in proportion to their extra exertion, make sweeter and more wholesome beef. Such is my experience and observation, as well as that of Judge Megis and many others.—*American Stock Journal.*

*For the New England Farmer.*

#### LANDS IN AROOSTOOK, ME.

MR. EDITOR:—I want some information in regard to Aroostook county, Maine; I have been informed that good farming land can be bought there for 50 cts. an acre. A YOUNG FARMER.  
*Beverly, February, 1861.*

REMARKS.—In speaking of the rapidity with which the Aroostook region is filling up with population, the Land Agent of Maine, in his recent report to the Legislature of that State, says:—

In the decade thus closed, the increase of population in the county has been in the unprecedented ratio of eighty per cent., the aggregate in 1850 being 12,533, and in 1860, 22,489. Large as this appears, it yet fails to give a proper idea of the present rate of growth, for during the last three years, the additions to the population have been quite as large as they were the first seven years of the decade, and there is a steady annual increase, not only in the aggregate but in the ratio, reckoning from the fixed number in 1850.

In no section of our country can a more intelligent and enterprising class of men be found—a class better fitted to endure the toils and privations of frontier life, or to establish the institutions, which are at once the distinguishing mark and the ornament of a New England community. During the year thus closing, their industry has been rewarded with most abundant crops, and the inhabitants are more than ever persuaded that Aroostook is destined to be the most beautiful and productive portion of our State.

Among the causes leading to this rapid development of Aroostook, the most potential and decisive is that to be found in the beneficent policy pursued by the State, in regard to its settling lands. Sold as they are at the low price of fifty cents per acre, and payment received in work on the public roads, within three years from the date of purchase, an opportunity is afforded for industrious and worthy men to acquire an independence on easier terms than can elsewhere be presented.

SHEEP AND HAY.—The *Ohio Cultivator*, publishes the official returns, from each county in the State, of the number and value of sheep killed, and of those injured by dogs, and of the acres and tons of "meadow crops." The total damage to sheep in Ohio, by dogs, in 1859, was \$101,895. Hay averages a small fraction over one ton to an acre—1,340,515 acres produced 1,365,987 tons.

For the New England Farmer.

**BRAHMA POOTRA FOWLS.**

MR. EDITOR:—Having been a constant reader of your valuable paper for some time, I have seen but few articles in relation to the different breeds of fowls and modes of keeping them. I should like to hear from your correspondents oftener upon that subject. Our farmers are often neglectful in the management of this valuable portion of their farm stock. We cannot derive much information from books, as they treat more particularly upon fancy breeds than upon those really suited for the farm-yard. We want a fowl to be a good layer, good for the market, to fatten easily, hardy and of domestic nature, and such fowls, with proper care, can be made more profitable than any other farm stock, that can be kept.

Many think that, by throwing to the hens as much corn as they need once or twice a day, and allow them their liberty, they are well kept. This may do in the summer, when vegetable matter can be found about the farm, but not in the winter season, as they need, like all animals, a variety of food. Corn and other grains are all very good for laying hens if fed together, "that is mixed grain," but to feed upon any one article of food in the winter season will not answer.

I have kept upwards of thirty different breeds of fowls, but have never, until this winter, found the breed that comes up to my idea of a perfect farm fowl, viz: the pure Brahma Pootra, which seems to possess all the good qualities requisite to a perfect breed of fowls. They are very large, yet well proportioned, the hens weighing from 8 to 12 pounds; legs yellow, flesh fine, yellow and tender; very domestic; cannot fly upwards of three feet, therefore are not troublesome by roosting about the premises, to the great annoyance of the animals, and all who may visit the barn. A farmer in Danvers who has taken the first premium at the Essex County Agricultural Society for the last three years, for this breed of fowls, has now 30 of them; they have laid all winter; he has obtained some days 2 dozen eggs from them; they are kept in summer in a field enclosed by a common stone wall. I obtained of him the first of November last, 9 of these hens, and kept an account of their eggs, which is as follows:

|   |        |
|---|--------|
| November, 12½ doz. eggs, sold at 30c..... | \$3,75 |
| December, 11¼ doz. eggs, sold at 25c..... | 3,20   |
| January, 10½ doz. eggs, sold at 30c.....  | 3,02   |

From 9 hens, 3 months, 34½ doz. eggs.....\$10,06

**EXPENSE OF KEEPING.**

1 bushel corn 90c, 1 bush. meal 80c, meat 40c.....\$2,10

Net profit.....\$7,96

They were fed regularly in the following manner: in the morning, corn, barley and meal scalded together; at noon, the contents of the family swill-pail; at night, 2 quarts of chopped carrots. I have not charged the carrots, as the manure from the hens will more than offset that account. Meat was given them twice a week. One great mistake our farmers make is keeping too many fowls in a small enclosure, and not taking proper care of them. More eggs can be produced in the winter season from 12 good hens, well kept, than from 100 fowls allowed to roam in all weather by day, and roost about in cold and exposed places, or crowded into a small, poorly ventilated coop

at night. Although they do not need a very warm coop, yet they require a dry, light and well ventilated house. Meat and vegetables chopped fine, without cooking, are very necessary in the production of eggs, and for the health of fowls in the winter season, when they are unable to obtain vegetable matter from the earth.

Salem, 1861.

JOHN S. IVES.

REMARKS.—It is not long since we published two or three articles on this subject.

For the New England Farmer.

**THE BIRDS OF NEW ENGLAND---No. 11.**

**THRUSHES.**

American Robin—Wood Thrush—Hermit Thrush—Olive-backed Thrush.

The THRUSHES, (constituting the family *Merulidae* of Vigors and Swainson, the *Turdidae* of various other authors,) are generally inoffensive and favorite birds, distributed in all countries and climates; about eight species may be reckoned as common to New England. The Thrushes feed much, and at some seasons wholly upon insects, destroying immense numbers of grubs and noxious insects, but towards autumn also subsist largely upon wild berries and small fruits, occasionally upon those cultivated; on which account many unscrupulous persons persist in destroying them, ignoring their valuable services in the destruction of insects, and their cheering songs. Some species are much sought after as food, particularly in some of the countries in the south of Europe, as also in the Middle, and some of the Southern States of our own country, where, in winter, the Robins are often sacrificed in great numbers for the tables of epicures. Many of the most noted song birds belong to this family, and nearly all our New England Thrushes are eminent songsters. They rank in the typical subfamily (*Merulinæ*) of this group, or among the true Thrushes.

The AMERICAN ROBIN or THE ROBIN, (*Turdus migratorius*, Linn.; *Merula migratoria*, of Swain.) one of our best known, familiar and welcome species, is said to inhabit the whole continent of North America, and over the greater part of this extensive region it is known to rear its young. It comes to us from the south early in spring, being in fact one of our earliest spring visitants, and its presence and cheerful notes are welcomed by all as being the precursors of genial weather and opening buds. While the fields are yet dappled with snow early in April, or even sometimes in March, his thrilling notes uttered but occasionally, awaken within the soul those peculiar emotions of pleasure that are the concomitants of the return of the vernal season. Indeed, the Robin does not retire far southward to spend the winter, a few being seen even in New England, in certain sheltered localities, where their favorite cedar and other berries abound, throughout that inclement season; while in Pennsylvania, and in many of the Southern States they are said to swarm in immense numbers. In summer they are found far to the north, being frequent at Hudson's Bay, in latitude 65°, where, according to Dr. Richardson, "the male is one of the loudest and most assiduous of the songsters that frequent the fur countries."



Notwithstanding the many amiable characteristics of the American Robin, and the endearing title by which he is known, he is often accused, and, undoubtedly, not without some reason, of robbing our gardens and orchards of their choice fruits, he being particularly fond of strawberries and cherries; hence the aggrieved gardener, forgetting or ignoring his many virtues, declares extermination against him; he sees nothing in him but what is despicable, and rejoices in his destruction; the little losses the Robin occasions by far outweigh, in his estimation, the esteem in which he is held by the mass of people, to which his obvious virtuous traits so well entitle him; his songs, and the destruction of great numbers of offensive grubs, though valuable to the general farmer, are nothing to him.

The Robin measures about nine and a half inches in length, and about fifteen in alar extent. Color above, dusky ash, deepening into black on the head and tail; beneath a dark orange, fading into white towards the vent; throat white, with black streaks; bill yellow, black near the tip.

The WOOD THRUSH, (*Turdus mustelinus*, Gmel.) sometimes called the *Swamp Robin* or *Wood Robin*, like the preceding species, inhabits a very extensive region, ranging, it is said, from Mexico to the country around Hudson's Bay. It is a quite shy and retiring bird, generally selecting the darkest and most secluded sylvan situations for its retreat, often a hollow, overgrown with grapevines and alders, through which a rippling stream meanders; here in peace and solitude he rears his young, and from whence he pours his melodious strains, that in the clear, still mornings and evenings of May and June, as well as in the long, gloomy days of lowery weather that occur, may be heard at a considerable distance. His notes, however, are not startling or very conspicuous, being repeated slowly, with considerable intervals of rest between, yet they appear unequalled in sweetness and soothing effect by any of our native song birds; and a recent writer has truthfully observed, "It is certain that any one who stops to listen to this bird will become spell-bound, and deaf to almost every other sound in the grove, as if his ears were enchained to the song of the Siren." The Wood Thrush is exceedingly shy; and, as it is seldom seen outside of the shade of the forest, is not generally known to our rural population, as while he charms us with his song, he seems solicitous to remain concealed. It is generally seen singly or in pairs, and is not numerous. The nest is placed in a bush or small tree, not far from the ground, in his favorite shady glens; it is composed outwardly of withered leaves, lined with a layer of mud and fine, fibrous roots. The eggs are four or five, of an unspotted, uniform light blue. The male commences his song on his first arrival, which occurs about the first of May, and "with the dawn of the succeeding morning," as Wilson observes, "mounting to the top of some tall tree that rises from a low, thick shaded part of the woods, he pipes his few, but clear and musical notes, in a kind of ecstasy; the prelude or symphony, to which strongly resembles the double-tonguing of a German flute, and sometimes the tinkling of a small bell; the whole song consists of five or six parts, the last note of each of which is in such a tone as to leave the conclusion evidently sus-

pending; the finale is finely managed, and with such charming effect as to soothe and tranquilize the mind, and to seem sweeter and mellower at each successive repetition."

The colors of the Wood Thrush are unobtrusive, but chaste and pleasing, being of a brownish-yellow above, brightening into reddish on the head, and inclining to an olive on the tail; throat and abdomen pure white; breast pale buff, spotted with pointed spots of dusky. Length eight inches; extent thirteen.

The HERMIT THRUSH, (*Turdus solitarius*, Wils.) has been styled the *American Nightingale*, from its great resemblance in size and color to the Nightingale of Europe, and several respectable ornithogists ascribe to it powers of song equaling or scarcely inferior to the musical talent of that well known and far famed bird. Nuttall even considers its lay, in melody and sweetness, to surpass the song of the favorite Wood Thrush. Wilson, however, who described this Thrush, and appeared to be familiar with its history, considered it destitute of song, and observes that they are rarely seen in Pennsylvania, except for a few weeks early in the spring, and late in the fall; but further observes that he found them breeding in the cane swamps of the country of the Choctaw Indians, in May, and it seems remarkable that their song should have escaped the notice of this observing naturalist, if it really possesses such noteworthy musical talents. This Thrush is found from the table lands of Mexico, northward, throughout the United States to the Alpine summits of northern New England, and is said to pass onward to the fiftieth parallel of north latitude; the favorite native haunts of this very recluse species, however, seem to be the dark, solitary cane and myrtle swamps of the Southern States; and the more dark and gloomy the canebrake, the more sure are these Hermits to be met with. Audubon observes that along the borders of the Mississippi, where almost impenetrable canebrakes and gloomy swamps abound, the Hermit Thrush is common throughout the summer, rearing two broods in a year in lower Louisiana, retreating to higher lands during the period when these alluvial tracts are inundated. They generally arrive in New England from the south about the middle of April, continuing with us for several weeks, in small, scattered parties, chiefly confined to the woods, but occasionally making excursions to the garden and plowed fields, uttering no other note than a feeble *queak*; are not at all shy, and when perched, often slowly wag the tail, much like the common Pewee or Phoebe. About the 5th or 10th of May they disappear, and during all my rambles through the forests and swamps in this vicinity I have never observed a single individual in the summer, though I have watched for them closely. In October they again appear in small parties, feeding on the berries of several shrubs that abound in low situations, sometimes lingering till the 10th of November, at which time they were common last fall. They are said to breed, however, in the dense woods of various parts of New England, where their low, melodious notes are almost unrivalled. Their nest is placed at no great elevation, on a horizontal branch, and composed of leaves fibrous rootlets and dry grass neatly arranged. The eggs, four or five in number, are pale greenish-blue, spotted with olive.

The Hermit Thrush is seven inches in length, and ten and a half in extent; upper parts deep olive brown, the tail quite ferruginous; beneath dull white, the breast cream color, with pointed, dark brown spots. Four of the American Thrushes are so closely allied in size, color and habits, that an inexperienced observer would find difficulty in distinguishing between them, except by actual and careful comparisons; the present species, the Wood Thrush, the following species, and the Veery or Wilson's Thrush, which will be described in the next number.

The OLIVE-BACKED THRUSH (*Turdus olivaceus*, Girard,) closely resembles the Hermit Thrush in size, color and general markings, to which it is closely allied. According to De Kay, this species was first detected by a young and very zealous ornithologist, the late H. C. DE RIAM, who perished from fatigue and exposure under the burning sun of Carolina, while pursuing his favorite science. It is supposed by Mr. Girard, who first described it in his *Birds of Long Island*, that it probably proceeds farther north than the Hermit Thrush. Two specimens of this Thrush are now preserved in my collection of New England birds, that were shot last May, both at a considerable distance from any woods, but were probably on their passage from one piece of forest to another. A Thrush, generally thought to be the Wood Thrush, took up its residence in the Court Square of this city last May, and from the majestic elms and elegant maples that adorn it poured forth his musical strains undisturbed by the din incident to the life and business of a stirring city, for several weeks. My friend, B. HOSFORD, a close observer of our native birds, and whose opinion in ornithological matters is entitled to respect, though there was a general resemblance in its song to that of the Wood Thrush, affirms that not a single note of this bird's song corresponded with the well known lay of the Wood Thrush; so that I have thought it probable that this bird might have belonged to the present species, so contrary is it to the nature of the Wood Thrush to be found in such a situation.

Springfield, Jan., 1861.

J. A. A.

For the *New England Farmer*.

#### ITALIAN, OR CRIMSON CLOVER.

MR. BROWN:—In the monthly *Farmer* for January, I noticed a well executed engraving of the flower and leaves of the *Italian crimson clover*, accompanied by your own remarks, and a communication from Mr. Everett, in regard to it. I had a paper of the seed sent to me, a few years since, from the Patent Office, which I sowed. It grew luxuriantly, and matured its seed the same year. I have sowed a little, as a border plant, every year since. In your February No., an inquiry is made whether the seed has to be sown every year. From my own observation and experience, I should say yes. I have never seen a root of it throw out leaves in the spring, after it had blossomed the previous year. Your description of it, as quoted from Prof. Wilson, is a complete one. It is a beautiful looking plant, when in full bloom, and will resist the effects of frost far longer than any other species of clover that I know of. In *November* last, some young ladies

gathered it to make wreaths of. Still, in my belief, the same root will never produce blossom stalks but once. By sowing late in summer, or in early autumn, as is practiced in Scotland, it would probably live through the winter, and start in the spring. Sown in the spring, it will mature the same year, and that will be the last of it.

MOODY HOBBS.

Pelham, N. H., Feb. 5, 1861.

#### EXTRACTS AND REPLIES.

##### A NEW POWER WANTED.

MR. BROWN:—In your editorial of last week, you spoke of the interest manifested by ladies in their husbands' employments as a "new power in agricultural pursuits." Shall we understand by this, that you consider it a *new* thing for farmers' wives and daughters to feel an interest in farming, and to enter heartily and intelligently into the husbands' or fathers' plans? "There is no new thing under the sun," Mr. Brown—and I do sincerely believe that, among the many happy homes of New England, you will find very few where wife and daughters are not ready sympathizers and helpers.

Where should our hearts be, if not with those we love best?

ANNA.

W—, Feb., 1861.

REMARKS.—Yes, my dear woman, we do mean to be understood that the power of which we spoke, will be a *new* power in hundreds of homes, and very sorry are we that such is the truth. You are needed, and a hundred more like you, in the homes of farmers, to convince the female portion of the family that their true interest lies in a better understanding of the art in which their husbands and brothers are engaged, and that a more cordial sympathy with them is greatly needed. There is a *new* power needed on the other side of the house, too. The sympathy should be reciprocal. There should be but *one* interest in the family, and while one has his or her specific charge of certain items of duty, the other should cheerfully recognize and be interested in it. Mutual endeavor should continually strengthen mutual love, into one heart, hand and voice, and then there is nothing on earth so pure, lovely and beautiful, as the family!

##### CRANBERRY CULTURE.

It is now about 60 years since this valuable fruit has been raised in the eastern part of Massachusetts, but not until about 30 years has it been introduced into the markets as a saleable product. For the last 15 years it has been difficult for merchants to obtain as many as they wanted. I know of merchants who buy large quantities every year, and the export trade is greatly increasing every year.

This fruit is worth from \$10 to \$20, and never is lower than \$8 per barrel. There are four varieties of this fruit. The Bell, Washington, Orange, and the Egg. Although the shapes of these kinds are different, the taste is the same.

What renders this fruit so valuable, is its exquisite and delicious flavor after being prepared for the table, and the extraordinary manner in which it keeps from rotting. Fruit has been known to keep 20 months, with extra care. This is what makes it so valuable to ship. It is shipped to Europe and California. Every person who owns land had better raise enough for his own use, if not for the market. Any land that will bear the potato will bear the cranberry, but moist and wet land is best adapted to its culture. I appeal to all who own meadows and swamps to introduce this fruit. Land that is comparatively worth nothing can be made to be worth from \$100 to \$500 an acre. I know of acres that a few years ago were worth nothing, which to-day are worth \$500 per acre. JOSEPH L. DANIELS.

Milford, Mass., Feb. 6, 1861.

OYSTER SHELL LIME—HOT BEDS—TOMATO SEED.

1. Will you give the most economical method of burning or converting oyster shells into the so-called oyster shell lime?

2. Give the method, kind of soil, manure, &c., of raising early market lettuce.

3. Give the best way of making a cheap and suitable hot-bed for starting tomato plants, &c. Also, can second-hand windows be bought so as be cheaper in the end than new, and about what is the price of each?

4. About what time ought tomato seed to be planted so as to come forward in good season?

YOUNG FARMER.

Somerville, Mass., Feb., 1861.

REMARKS.—1. Pile up the shells in the corner where two walls come together, with alternate layers of wood or brush, cover with earth, or turf, and set on fire, watching and tending as is done in burning coal.

2. Sow lettuce in moderate hot-beds early in March, and if tended well, the plants will be ready for transplanting by the middle of April. Put them into a good sandy loam soil, made warm underneath by a generous supply of horse manure, stir the ground about them often, and you will be likely to get good heads before the approach of warm weather.

3. We made suggestions about hot-beds in last week's paper. Second-hand sashes may sometimes be purchased low. Inquire the price of new, and then you will be able to judge whether to purchase second-hand or not.

4. Put tomato seeds in pots or boxes in the house, or in the hot-beds early in March, and again on the 10th and middle of the month.

SALTED POSTS.

Can you, or any of your numerous readers, inform me as to the utility of putting salt into green hemlock fence posts?

Will it add to their durability on dry, sandy land?

Westford, Vt., Feb., 1861.

S. G. B.

REMARKS.—Will some one enlighten S. G. B.?

PULVERIZATION OF MANURES.

There is one subject which to my mind has not been so thoroughly discussed in the *Farmer* as its importance demands—the pulverization of manures.

It is the common practice to spread broadcast in the spring, and plow under all manures which have accumulated during the winter. Such manures, from being thrown out in the snow, or into the cellar, have received an undue amount of moisture, and as a forkful is thrown into the cart, so it lays; requiring a very careful hand to spread it, or it lays in large bunches on the ground. This, it seems to me, is very far from the proper way of applying manures.

Now the question seems to be, to what extent can labor and materials be profitably applied to effect the pulverization of manures? All observing men are aware that the roots of plants, at the point where they take their food, are very small, and can no more appropriate a large lump of manure, than a man can live on half-cooked food. I write in the hope of provoking from your pen or those of your able correspondents, some articles on a subject which demands "line upon line and precept upon precept."

Wells, Me., 1861.

MOSES LITTLEFIELD.

USE OF SLAB IN SEEDING LANDS.

I am very much pleased with the idea of the slab for smoothing land noticed in last week's paper. It is all right, except that one of the draft chains should be a little longer than the other, so that the slab will move at an angle of about 15° with the line of draft, and then it will draw much easier and do the work better.

Where can I get cranberry vines to set, and the proper instructions for their cultivation?

South Dorset, Vt., 1861.

E. P. LUTHER.

REMARKS.—Thank you for the suggestion about the chain. The use of the slab strikes us as a valuable improvement over the brush harrow; perhaps both may be used advantageously.

Almost any town in the easterly part of New Hampshire has an abundance of cranberry vines. You can get "Eastwood on the Cranberry" at this office.

PROLIFIC HENS.

The following statement, may perhaps be interesting to the readers of your paper. I have a flock of 37 hens of the Chittagong and Dorking breed, that have laid during the last three months 128½ dozen eggs, viz.:

|   |           |
|---|-----------|
| From Nov. 15th, 1860, to Dec. 15th.....       | 495 eggs. |
| From Dec. 15th, 1860, to Jan. 15th, 1861..... | 485 eggs. |
| From Jan. 15th, 1860, to Feb. 15th, 1861..... | 562 eggs. |
| Total.....                                    | 1542      |

WILLIAM ROBINSON.

Boston, Feb. 15, 1861.

SHEEP KILLED BY AN OWL.—On the 13th inst., Mr. A. North went to feed his sheep, and found two or three quite bloody, and one missing. There being a light snow upon the ground, he concluded he could discover the depredator by

his tracks. He made diligent search, found the missing sheep dead and partly eaten. About the carcass were tracks of a large bird. He set a trap upon the carcass, and next morning had a monster owl, weighing eight pounds. It seems that he lit upon the sheep's back, and with his talons clung to the wool, and with his beak severed the large vein on the side of the neck, thus bleeding him to death. This occurrence would not seem so strange had the sheep been small and poor. Mr. North being a thorough man, and a reader of the *Ohio Farmer*, keeps but few sheep, and keeps them well. Therefore the crows and owls have no claims on his flock.—J. B. LANG, Huntington, Ohio, in *Ohio Farmer*.

*For the New England Farmer.*

#### SWEET APPLES.

The value of sweet apples is not known or appreciated. Of all products of the farm, there is nothing so useful, or so profitable, as the best varieties of sweet apples. They are in eating early, and continue to the last, say until June of next year. Their use for food, for man and beast, is more valuable than any other kind of fruit or vegetables. For men, women and children, the use is so great, that it is impossible to estimate it. In the first place many kinds are first-rate for eating raw, and all are good baked. There is no article of food that has so salutary an effect on the digestive organs as baked sweet apples. They keep the bowels in order, and the influence is good on the lungs, liver and kidneys; in fact, if sweet apples were used freely, there would be but little demand for doctors. Baked apples and milk are among the best things for children. If more of such kinds of food were used, such as mush and milk, apples and milk, milk porridge, &c., instead of animal food, cake, pastry, sugar plums or candy, we should see but very few under-sized persons, with rickets, hip disease, spinal disease, short, dumpy and weakly, with narrow chests, round shoulders and shuffling gait. When children are brought up on good vegetable and fruit diet, with loose clothing, out door exercise, short school hours and plenty of interesting plays and other acts of freedom, they will in a short time renew our degenerating race.

The best kinds of sweet apples are the Early Bough, High Top Sweet, Orange Sweet, Harvey Sweeting, Donmouth Sweet, Jones Sweet, Talman Sweet, Lovett Sweet, (of Danvers,) Nectarine Sweet, Ribstone Sweet, Mackay Sweet and Ladies' Sweet; also Walker's Sweet of North Brookfield, and for a table apple the English Sweet, ripe or in eating from August to February. It is a large red apple, shape much like the Porter, of a most delicious flavor, and keeps well. Many other kinds could be mentioned, but every one has a few favorites to add, so I leave it to individuals to fill up the list. I gave my cow and a colt as many wind fall apples as they wanted from August to October, and they grew fat on them. My cow gave excellent milk and a large quantity, and if she did not get her apples we saw quite a diminution in her milk. I have no doubt but apples will make more milk than any other kind of vegetable, or fruit. Sweet and sour apples are equally good for cattle, as the flavor of the fruit is

not in the juice but in the pulp, and as the nutritious quality is in the juice, so the pulp or flavor is of no consequence.

Sweet apples are more saleable in the market than any other kinds of fruit. My Early Bough sell for \$1.50 per bushel, Orange Sweets \$2 to \$3 per barrel, and others equally well. The Jones Sweet is a large white apple, a great bearer, and of large size. It came from New Hampshire, and I think no one has them in this vicinity but myself. The Walker Sweet is one of the sweetest apples in existence, good size, and great bearer. The Harvey Sweeting is an old Colony apple, good for baking. The High Top Sweeting is supposed to have been originated by Mr. Blackstone, of Rhode Island. The English Sweet was given to me by Mrs. Clark, a sister of Hon. John H. Wilkins, of Boston. The Donmouth Sweet is peculiar to Rhode Island. The Nectarine Sweet I have—it is a good bearer, and bears every year.

I have seen several communications in your excellent paper, on the use of sweet apples, and I am glad to see that the subject is exciting the attention of the public. S. A. SHURTLIFF.

*Spring Grove, Feb., 1861.*

P. S.—If any person should want scions of any varieties that I have, it would give me pleasure to give them as many as they want.

*For the New England Farmer.*

#### EVERBEARING RASPBERRIES.

In a selected paragraph, credited to Dr. WARDER, in the *Farmer* of February 16, it is remarked: "There is no reason why we may not one day have perpetual raspberries as well as perpetual roses; there is nothing unreasonable or impossible in it, but yet we have not seen anything of the kind."

Some three or four years since I discovered a wild raspberry plant, bearing blossoms and ripe fruit in September; at the time I supposed it to be merely an accidental circumstance, rather than a permanent characteristic of the plant; yet I determined to watch the plant the next season for the recurrence of the freak. In May, the following season, it blossomed and began to mature its fruits with the other wild plants; but while ripe fruit loaded some of the branches, new shoots were successively appearing on other parts of the plant, developing flowers and flower-buds; and thus till late in autumn, or for more than three months, this plant continually exhibited blossoms, green fruit in all its stages to maturity as well as ripe fruit. The same phenomenon has been repeated every year since, and late in September I have been able several times to collect a handful of ripe, large and fine-looking fruit from this anomalous plant. In the fall of 1859 it was transplanted to the garden, and last year still persisted in sending out shoots that would develop flowers and mature fruit; but the fruit was smaller than usual, the plant evidently suffering from having been transplanted.

New canes sprang up from the few roots that were left where the original plant stood, grew luxuriantly, and towards the end of summer blossomed and produced fine large fruit in abundance, and when the cold blasts and cold nights of Oc-

tober came on, was still producing flower-buds and flowers, and ripening fruit; the flowers and immature berries were of course withered by the severe frosts; but at this time the plant was as fresh and luxuriant as at any time previous, and exhibited none of those signs of decay that had come over vegetation in general; hence I presume, if properly cared for, it might be kept in bearing through the greater part of the year. I have yet to see a wild plant that is more productive or that produces finer fruit than this has since it come under my observation, as it, by chance, has had the advantage of being situated in a rich and deep soil. Otherwise than in its tendency to perpetual bearing, it does not differ in appearance from the generality of its species, which is the *Rubus occidentalis* of botanists, commonly known as the black raspberry, thimbleberry, &c. I may add that during the last year I have met with two or three other plants of this species that exhibit the same unusual peculiarity, all being found in the vicinity of the original plant. Seeing the remarks quoted above, I have thought that perhaps these facts may interest some of your readers.

The fruit of the wild black raspberry, it is doubtless well known, is not very inferior, either in point of size, productiveness or flavor, especially when favorably situated, and I have often thought would well repay cultivation; at least the plants above described I intend shall have careful attention and cultivation. J. A. A.

*Springfield, Mass., Feb. 20, 1861.*

REMARKS.—An exceedingly interesting account. When the writer has a root to spare we should be very glad to obtain one. This raspberry is our favorite fruit.

#### WASHINGTON TERRITORY.

In his recent message, Gov. McGill, of Washington Territory, thus speaks of the growth and resources of that Territory:

"But a few years have elapsed—not more than nine years—since the interior of our Territory was known only to the trapper and the tourist. Although unrivaled in the magnificence of its scenery, it was believed to be almost uninhabitable, and valueless for the purposes of agriculture.

"How great has been the change; our inhabitants are now numbered by thousands. In proportion to area, Washington Territory, west of the Cascade Mountains, contains as much good arable land as any other portion of our country west of the Missouri river. The soil is of remarkable fertility, and all the cereals, fruits and vegetables common to a temperate climate thrive well. In no other portion of the country can stock-raising and wool-growing be so profitably followed. As a lumbering region, the shores of Puget Sound are known throughout the world. Our fisheries are the best on the Pacific coast; and coal of superior quality is found in great abundance.

"In addition to these inexhaustible sources of wealth, the Territory is known to be rich in precious metals. During the past summer new gold diggings have been commenced on the Wenatchee and Clear-water rivers, tributaries of the Colum-

bia, and in the valleys of the Siminkameen and Okanagan; and from the reports of the different surveying and prospecting parties, there can be no doubt of the existence of gold in large quantities on all the rivers and streams east of the Cascade Mountains. Traces of gold have been also found along the route of the Fort Benton and Walla Walla road, on the Big Blackfoot river, and Flint and Benetze creeks."

#### HOPE.

We live in hope: though clouds appear,  
They linger but a day;  
The sun, to us a gift so dear,  
Will scatter them away;  
Thus life is but an April shower,  
And troubles are but rain;  
And hope, the sun, that in an hour  
Will bring us joy again.

#### Memories.

Thoughts of the dead are always sad, and yet  
Those we have loved we never can forget;  
Kind eyes look sweetly through the shadowy gloom,  
And mournful voices whisper from the tomb,  
While, with low tone and mildly pensive eye,  
We speak their names whose doom has been to die.

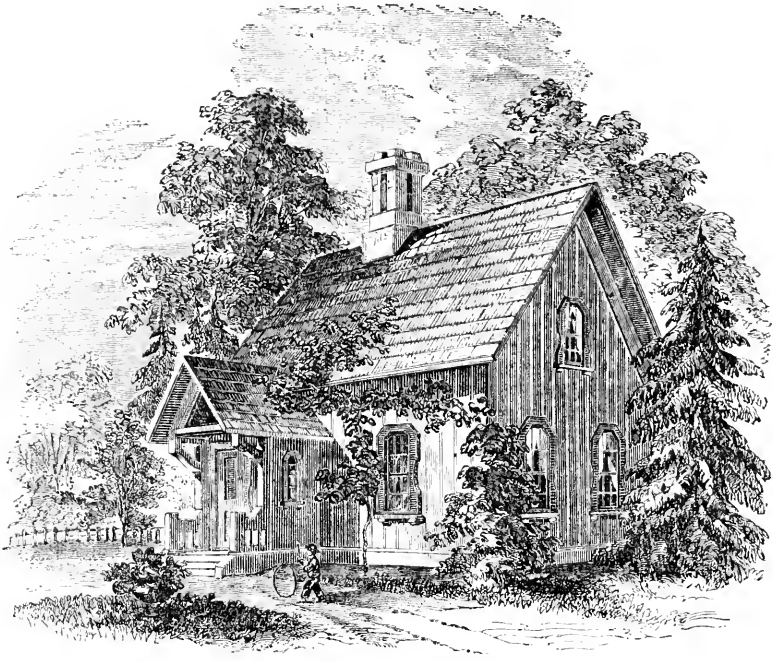
#### EXTRACT OF TOBACCO.

MR. EDITOR:—Hearing accidentally of the South Down Company's preparation of tobacco, for the destruction of vermin on animals, I am pleased to be able to give my testimony to its complete efficacy in entirely removing lice from my cattle; it is the best and most convenient remedy I have ever known, and works so well on my cattle, that I shall try it for my sheep, after shearing, to kill ticks. Why don't the company make it known to the farmers? H. W.

*Springfield, Feb.*

REMARKS.—The extract of Tobacco, alluded to above, is advertised in our paper, and no owner of an animal should be without it. It is said also to be the best article in use, for killing vermin on green house plants.

THE FOOT OF A HORSE.—The human hand has often been taken to illustrate Divine wisdom—and very well. But have you ever examined your horse's foot? It is hardly less curious, in its way. Its parts are somewhat complicated, yet their design is simple and obvious. The hoof is not, as it appears to the careless eye, a mere lump of insensible bone fastened to the leg by a joint. It is made up of a series of thin layers, or leaves, of horn, about five hundred in number, nicely fitted to each other and forming a lining to the foot itself. Then there are as many more layers, belonging to what is called the "coffin bone," and fitted into this. These are elastic. Take a quire of paper and insert the leaves one by one, into those of another quire, and you will get some idea of the arrangements of the several layers. Now, the weight of the horse rests on as many elastic springs as there are layers in his four feet,—about 4000; and this is contrived, not only for the easy conveyance of the horse's own body, but whatever burdens may be laid on him.



## RURAL ARCHITECTURE.

COTTAGE HOUSE AND GROUND, BY GEO. E. HARNEY, LYNN, MASS.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

There seems to us to be no reason why the humble cottage of the poor man should not be as attractive and pleasing in appearance as the extensive facades and lordly proportions of the millionaire's mansion. To be sure, one cannot expect with a few hundred dollars to have the extensive accommodations and elegant effect of the halls, galleries and arches of the mansion that would cost twenty thousand or more, nor with his half acre of ground can he expect to have the sweeping lawns and park-like effect of the estate comprising many acres.

But there is a way in which a man may give his small cottage and grounds an air of taste, a certain snugness and cosiness which a larger place cannot have. Nature will ornament his simple dwelling for him in her own peculiar way, producing, in a short time, effects which completely throw into the shade the skill of the cleverest workman, or the effects of the most creative designs. Let flowering vines be planted around it, and let them cover its sides and trail along its projections. Let a "Queen of the Prairies" form a fragrant bower around and over its principal window. Have a seat underneath, where it will be a pleasure to sit of a summer evening, when the day's work is done, and spend an hour, indulging with the children in their sports, or in

friendly discussion with a neighbor who has "just dropped over." Let a Wistaria twine around the columns and run along the roof of the veranda, if there be one. Plant a hardy English ivy at its northern corner, a honeysuckle at its southern corner, and near it make a garden, and fill it with rare and beautiful flowers.

This is where the poor man, in adorning his little cottage, has the decided advantage over the owner of the elegant villa; for we all have noticed that, in proportion as a building is increased in size, does it lose that comfortable, inviting air that a small building, properly designed, and with appropriate surroundings, *always* has. And in proportion as finely-wrought architectural details are introduced, just in that proportion must we discard those other ornaments, the living drapery which Nature has provided; for it would be utter folly to enrich a building with elaborate and beautiful ornamentation, and then hide the whole by a covering of vines and flowers.

*Let Nature adorn our humble cottages, and leave it to Art to decorate the princely mansion.*

Then, too, the grounds about the cottage may have a character of their own. Introduce here but few large trees, for they tend to diminish the apparent size of the lot; but rather depend upon heavy shrubbery and flowers; planting a few

evergreens, however, in northern exposures, and a few deciduous trees of the medium size, such as, perhaps, the scarlet maple, the larch, the birch or the mountain ash, wherever they can be used with good effect.

Let your paths—not broad carriage ways, for you have no carriage, but hard, gravelled walks just wide enough for four persons to walk comfortably abreast—wind in and out among the shrubbery—wherever deviating from a straight line, always with seeming good reason—make the circuit of the entrances to the house and out-buildings, and finally terminate in some shady summer-house or play-house for the children, or rustic seat at the foot of the garden—anywhere, so there be some good reason for bringing it there.

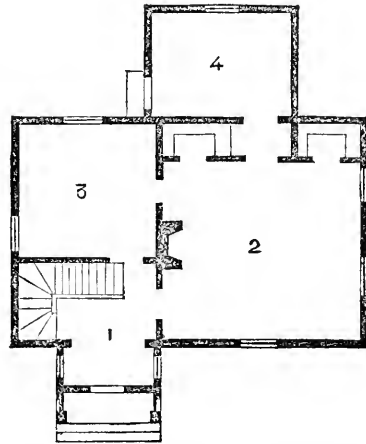
Let the groundwork of the ornamental portion be green lawn extending to the boundaries on either side, which are concealed by irregular plantations; and let figures be cut in this turf and filled with masses of flowers—verbenas, amaranths, geraniums, roses, etc. Buy, for two or three dollars, a neat vase of cast iron or terra co'ta, or what is cheaper still, and more meritorious, make one of the smooth twigs of birch or white oak, by covering a small wooden box with these twigs split in halves, and placing it upon a pedestal made of two or three crooked branches of the same tree. Then place it upon the lawn in front of the house, and fill it with myrtle, which will soon lengthen into beautiful tresses and droop gracefully over its sides, forming one of the prettiest garden ornaments that we know of. A sundial, too, is a very pretty addition for the lawn. In fact, anything of this kind, simple in character and artistic in design, helps to give importance to the place; provided, however, there be not too many of them, for a profuseness looks as if one were offering them for sale, and destroys that "breadth of effect" for which we are aiming.

Speaking of boundaries, don't build a fence between yourself and your neighbors unless it be absolutely necessary. If a ha-ha, or ditch, will not answer, plant a buckthorn or an arbor-vitæ hedge on the line, either of which will, in a few years, form an impassable barrier to intruders, and be less obtrusive than the ugly, whitewashed, tight board fences that we now have. A better plan still would be for two or more neighbors to join together and plant both lots (we speak now of the ornamental portion only) as if they were one, designating the boundary lines, perhaps, by an invisible wire fence or a row of low posts, (tenor twelve inches high,) painted green. We thus obtain broader effects and the appearance of more extensive grounds; in fact, with the cost of a sixty feet lot, each owner has the advantages of a lot measuring twice or thrice that width.

Thus we have endeavored to give in as few

words as possible, a hint or two with regard to the improvement of small cottages and cottage grounds. At some future time, we shall present with our designs one or two plans for planting and laying out one of these lots. Our design for this month is a simple cottage of one-and-a-half stories, built of frame, and covered in the vertical and battened manner. The porch over the front door is simple in construction, and should be executed in heavy stock, to give strength to the projecting roof.

The accommodation is as follows:



No. 1 is the hall, six feet wide and eleven feet long; the door on the right leads to the living room, No. 2, a pleasant room, fourteen feet square; this room is furnished with two large closets besides a passage to the wood-house, No. 4, which is a shed with a common lean-to roof, built against the house. From the living room opens directly the kitchen or working-room, No. 3, ten feet by eleven. If desired, this kitchen could be converted into a bedroom, in which case the present living room would be used as a kitchen; this plan, though it produces a less elegant effect than the others, will be preferred by many families, especially if an extra bedroom were desired.

The second floors contain a hall and two chambers, besides three or four closets.

Built in the manner before described, this cottage would cost about \$500.

*Design of January Number.*—With regard to the design in the January number, a correspondent found some difficulty "in harmonizing the whole with its parts" as he says. The whole difficulty is in the parlor; the size should have read fourteen by eighteen feet six inches, instead of fourteen by twenty; an error in copying the description. We shall be happy to furnish complete working drawings of any of our designs, that shall be correct in every particular, and easily understood by any carpenter.

## LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The eighth meeting of the series before this Society took place at the Representatives' Hall on Monday evening, and a very numerous company were present to hear the discussion. This was, "*What breeds of cattle are best adapted to the agriculture of this Commonwealth?*"

Mr. PROCTOR, of Danvers, was called to the chair, and said that he regretted exceedingly the absence of Dr. Loring, who had been expected to take the chair, as there was no man in his neighborhood, who had the ability or the personal experience in raising cattle, who would have given more information to the meeting than Dr. Loring. Of course, being unexpectedly called upon to preside, he was not prepared to make any lengthy remarks, but he would say that he had had forty years' experience among farmers, although he was not much of a farmer himself. He considered, as all would who were desirous for the agricultural prosperity of our State, that the question for discussion was one of immense interest, as cattle were next in importance to the land itself—they are the aids in tilling, and the sources of profit to the farmer, and if there are particular breeds which it is more advantageous to keep than others, we ought to know it.

He said that some of the old men present might remember the man on whose farm he first worked—Timothy Pickering, the originator of county agricultural societies, and the father of the State Society. In those days his employer's object was to raise the best stock, and to do this to get the best bulls as well as cows. The speaker's opinion was that the best dairy cows were the old red stock of New England, although he knew some advocated the claims of Alderneys, Ayrshires, Devons, and Short-Horns or Durhams, but on the whole, he thought that substantial farmers had yet to be convinced that these were better than Natives. He thought that three-quarters of the cows in the State were Natives or crosses with that description. There were some gentlemen farmers who strongly advocated the claims of the Alderneys or Ayrshires, and he mentioned Dr. Loring, of Salem, and Mr. Fay, of Lynn, as of the number, the former gentleman having the finest cattle he ever saw, but if the farmers thought these were the most profitable cows to keep they would keep them. The fact was, the fancy cattle brought fancy prices, and he thought a farmer would not import a heifer at a cost of more than a hundred dollars, when he could get the best of Natives for \$50. He considered that the most profitable cattle for the farmer to raise would be those that he made the most from, as the whole sum and substance of farming was to make both ends meet.

Mr. WHITE, of Petersham, was the next speaker. He thought that in deciding the question as to which were the best breeds, we should consider which had most of the good qualities combined. He thought all had their advantages in various parts of the Commonwealth. In his part of the State they thought the Short-Horn, mixed with the Native, were the best breed for general purposes, and for profit they considered them surely so. It is, said he, exceedingly difficult to get pure Native cattle, and the people in his neighborhood were now, and had been for some time, trying to get pure blooded seed stock, and they were doing this rapidly. They had no doubt that for the dairy the Durham breed was the best—for beef it was excellent, while perhaps the Devon was the best for work; yet not wishing to mix the breeds on their farms, they took the great Durhams. Col. White said that he had stated at a previous meeting of the Society, that he considered dairy farming the most profitable, and in connection with this, had spoken of a friend of his in Barre who kept 16 cows, which had produced last season an average of 440 lbs. of cheese each, which had been sold for 10 cents per pound. This had been circulated in the papers, and he had received a letter (which he read to the meeting) from Mr. Reuben Haynes, of Barre, stating that a neighbor of his who kept 24 cows had averaged the past season 650 lbs. of cheese per cow, which he sold for 10½ cents per pound net cash, while there were two others in the immediate neighborhood who had done equally as well.

Mr. White said that he considered these cows had returned \$88 per head per year, as, apart from the cheese, the calf would bring \$12, while the butter would be worth as much more. These cows which Mr. Haynes speaks of, said he, are great Durham cows of a high grade. The speaker said his neighbors were now raising very fine bulls for the purpose of breeding from, but they had no Ayrshires, and he hoped they would not have any.

Mr. W. J. BUCKMINSTER, of the *Ploughman*, said his father was breeding the red Devon, of medium size, and he considered them the best kind, as they are all they were recommended to him to be, and fully meet his expectations. He alluded to the suggestion made by Mr. White, in relation to combining all the best breeds in one animal, and said that it would be almost an impossibility; we may, said he, approximate, but never in the lifetime of any one present would the animal be seen. He thought the half blood Devons were decidedly the best for work, as they are very easily kept, and very docile, and travel very well; and to illustrate this he spoke of two yoke, which had been slaughtered in Belmont a few days since, that would travel so fast as to trou-



ble the driver to keep up with them. He knew of only one pair of pure Devons in the State, as those called Devons were mixed more or less with some other breed. In order to know the best breeds, he thought different breeds should be kept on the same farm, and then the opportunity could be had to test the different qualities of each by actual and nice experiment. He said that he had seen a yoke of fine large Durham cattle a few years since at the New Hampshire State fair, and the large price the owner was offered for them (\$200) induced him to sell them; the man regretted having sold them afterwards, as he thought he could not do his work so cheaply with others, yet in the spring he yoked a pair of half Devon steers, and he soon found that they did the work with less fatigue than the Durham cattle had done it, and he could keep three of them on the same feed the two he had sold consumed. The speaker said there was no better beef in our market than the North Devon cattle made, and in the Smithfield market in London this beef brought from half a cent to a cent a pound more than any other, unless it was some kinds of Scotch beef. The average quantity of butter from a Native cow was 5 lbs. per week, while from a Devon double the quantity could be obtained, so that for beef he considered them the best for size, while for butter it remained to be proved whether they would not give as much or more than any other breed, per 1000 lbs. weight, and for milk they were very much better than the Durham. He thought a man should, in the first place, consider what he wants to do with his cows, and then select the breed that will produce the most of the article he has the best market for. The Devon breed were active and remarkably docile, while Alderneys were very vicious even when young, and this particularly was the case with bulls, and in the decision of the question this point was important to be taken into consideration.

Mr. WHITE said that, to show the feeling in regard to Devon cattle in his neighborhood, a townsman of his had 60 head of cattle of that breed, and he did not know a farmer who had mixed with his stock.

Mr. PETERS, of Southboro', said that he had little experience in farming, having only been engaged in it about six years. He had come to learn and not to talk, but when he heard gentlemen speak so disparagingly of the Ayrshire breed, he felt as though he must speak in relation to it. He was aware that each section of the State needed a different kind of cattle, each having requisites that might be locally needed. When he bought his farm he had on it twenty Native cows, but he found they consumed too much for the return they made, while there was no reliance to be placed on their calves. Four years ago he bought

four heifers that came from Barre, which were of the Durham breed; on keeping them awhile, he found one to be an excellent milker, another good, another poor, and the fourth good for nothing. He thought the Ayrshire breed was the best for raising milk for the Boston market, for which purpose he kept his cows, as they were reliable for milking stock.

He thought the Alderney was extremely hardy, a small consumer, and to prove this he had been paying special attention to feeding, and he found that with corn-stalks and straw and a quart of shorts per day, they were kept in good condition. He could keep three Ayrshires on less than he could two Natives, and he thought two Ayrshires would give as much milk as any two Native, he had ever seen. He spoke of a farmer in New York who made a pound of butter from six quarts of milk from an Ayrshire cow, while he could make no more from double the quantity of a Native cow. He had kept Natives and Ayrshires side by side, and his foreman, a New Hampshire man, and prejudiced against Ayrshire cattle, had said to him, on his inquiring how the Natives looked so poor and the Ayrshires well, that he had fed them alike, but finding the Natives getting poor he had increased their food, but reduced that of the Ayrshire, thus showing conclusively that they will keep in good condition on much less feed. He spoke of the beef, and said that it was even better than the Devon, as the fat was marbled through, while the latter was on the outside. He closed by saying that, for raising milk to sell, there was nothing like the Ayrshire breed, while they are the most economical and easiest kept of any creatures we have, and will give the best return for the amount invested.

Mr. ASA SHELDON, of Wilmington, said that it was over 40 years since he began to keep cattle, and at that time he commenced mixing the breeds. He first mixed a Native with a Durham, the latter being the sire, but he found the heifer was not so good as the mother, and since then he had always been in favor of the Native breed. He thought the Native was a mixture of the Denmark with the Black Spanish, and this was fully shown in a light brindle color. If he was to mix breeds he would mix native with Ayrshire, as he considered the latter the greatest milkers imported; but if he wanted 50 cows, he would go to the State of Maine and there select them, and he would rather have them than any imported ones. The land he owned was poor, and he used his milk for butter, as he could sell all his skimmed milk and buttermilk advantageously. Five years ago, he had a heifer which made 17 lbs. of butter per week, and last year from 6 days' milk from the same heifer he made 15 lbs., which he sold to a store in Woburn for 30 cents per pound, and

before he left the store, the keeper sold it again for 32 cents per pound. He liked to see Durham cattle, but they would not suit his locality.

Speaking of oxen, Mr. Sheldon said he would repeat his idea of what an ox should be, as he had first stated it over 20 years ago in that Hall. He said that you should stand before him and be sure he has a fine hazel eye, large nostrils, long from the eye to the nostril, broad at and above the eyes, rather slim horns, toes straight out before him, straight in the knees, bosom full, back straight and ribs round and wide as his hips. If you find these points, said the speaker, you need not ask of what breed he is, but if you want one, buy him. He said that he had found that a black-eyed ox was not to be depended on, as he will kick and be ugly, while a short headed ox will start quick from the whip, but he will soon forget it. He thought the Ayrshires were free workers, and that the Devons were tough cattle to work, and tough meat to eat.

Mr. MORSE, of Northbridge, spoke of the Ayrshires in favorable terms, but as for making butter, he thought the Alderneys would make more, "for their inches," as the Englishman would say, than any other breed. He said there was a cow kept in the neighborhood of Boston, that gave over 500 lbs of butter a year, and this had sold for 40 cents, and sometimes, 50 cents per pound. He also spoke in very high terms, of the rich milking qualities of some Alderneys, formerly owned in Worcester, by Mr. Thomas Drew, of this city, and one now owned by Mr. Lincoln, in Worcester.

Mr. LAPHAM, of Fall River, said in substance, that in his experience, he had found the Devon breed to be the best, the Ayrshire crossed with the Durham the next best, and he had a Canadian cow, at least he thought she was from that country, which was an excellent milker. He spoke of the herd of Durhams of the late Mr. Ruggles, of Fall River, which he said gave a large quantity of milk, but it was of poor quality. He considered that the true way to look at this question, was, the best breeds to raise for the public good, as their good demanded quality first, and quantity afterwards.

Mr. TOWER, of Berkshire, being called on, said that it must be expected each man would speak in favor of those breeds with which he had done the best. He stated that there were 130,000 cows in the Commonwealth, from which 15,000,000, lbs. of butter and cheese were annually made, about three times as much of the latter as the former, and there were, moreover, 300,000 neat cattle in the State, and it would be strange with these different interests if there were not a variety of breeds, each thought the best. He did not know how it was in Middlesex and Essex,

but in Berkshire they made excellent cheese, and more of it, than in any other county in the State, except Worcester, perhaps. He had had occasion to see and examine into the dairy business there, and he knew 10 dairymen who for the past 10 years had averaged from 500 to 600 lbs. of cheese per season to a cow, showing a return of \$60 each cow per year. He spoke of one man, who keeps 24 cows and turns everything on his farm into feed, who often averages \$70 per cow. In our section, said he, we prefer the Native breed, but some farmers like to mix a little with Durham. There were a few Ayrshire and some English, which latter were always of a bright cherry red. Those who made cheese seemed to think that no breed was so good as the Native with a mixture of one-fourth to one-half Durham. He said that 10, 12 or 15 quarts of milk per day cannot be produced without feed in proportion to the milk, and there was a very great difference in cows of the same breed in this respect. He had never seen any large Devons, but they considered Durhams better for their work and beef, they mature quicker, and to get good cattle he said it was necessary to pet them and care for them well the first year. The general feed for milch cows, in his county, was one part corn, one rye and another oats, and some add another of buckwheat. Poor hay, he was convinced, would never make a cow give milk, and notwithstanding he liked to see a cow in good condition yet for milking qualities he would take those that looked the worst in the fall, as that was a pretty sure sign they had milked well in the summer. He said that he thought for the wants of Berkshire farmers a cross of the Durham was the best for all purposes.

Mr. QUINCY, Jr., of Quincy, said that he always kept the native stock, such as is found in New Hampshire, Vermont and Maine, on his farm, and he got between 500 and 600 quarts of milk per day, and he could increase the quantity 60 quarts on two days' notice by change in feed, but this would have to be done at the expense of the quality. A milkman can as well adulterate his milk in the cow as out, as the whole was done in the feed.

Mr. TYLER, of Uxbridge, was in hopes to have heard more statements of actual experiments. He obtained from his cows 25,000 quarts of milk per year, which he sold on his farm for 3 cents per quart, and his cows cost him from \$12 to \$16 each in grain, getting the balance of their sustenance from grazing. He thought they produced him at least \$60 each per year.

The subject for discussion at the next meeting is "Underdraining," and Judge French, of New Hampshire, is expected to preside.

CARRYING THE WHIP.—There is more in the movements of the driver of an ox-team, and in

carrying of the whip, than most farmers think. Oxen, however quick in their movements, or upright their walk in the yoke, soon become dull, and get the practice of "shoving" or "hauling" in consequence of the driver lagging along, or, as is often the practice, going ahead of his team, and from time to time stepping back and whipping them. A driver of an ox-team should walk directly opposite the yoke, walk straight, and carry his whip as upright as a soldier would his gun. Use a whip-stock with a short lash, and touch the cattle only with the lash, and never strike them on the nose or over the eyes.—*Ohio Farmer.*

#### THE TOMATO—ITS USES AND CULTIVATION.

The following letter on this subject will be read with interest by all who have contemplated the influence which the universal cultivation of the Tomato is destined to have upon public health and economy. Probably few persons have bestowed more attention on the tomato, than the writer of the subjoined letter.—*Working Farmer.*

DEAR SIR:—Since you and many other cultivators of the tomato, have expressed your surprise and satisfaction on examining some of my seedling tomatoes, and a desire to know their origin and proper treatment, I will with pleasure, comply with your request.

Until within a few years, very little was known in this country about the tomato. It was grown as an embellishment in some corner of a flower-garden, and called the Love Apple. Now, it is an article of daily food; and in a few years it will be in common use in almost every part of the globe. Its culture and use will everywhere extend, just in proportion as reliable and exact information on the subject is spread. It does not take long now to scatter facts. The human race is coming near together, and all facts concerning our common welfare should be freely disseminated. I have grown the tomato, and watched its culture in many of the climates and countries of Europe and America, and I will furnish my little quota of observation and practical experience, hoping thereby to draw out valuable information from others. Everybody knows something of the value of the tomato as a fruit, and how we should miss it if it were raised no more. But very few persons know how easily and abundantly it can be grown in perfection, how cheaply it can be preserved for future use in many forms, and its invaluable medical properties as conducive to health and vitality. I will speak only on two or three of these points.

1st. *The best Kinds and Varieties.*—Six years ago I began a more thorough system of experiments than I had ever practiced or seen. I prepared my beds for growing tomatoes, and the analysis of the soil corresponded very closely with the chemical components of the fruit. I then germinated ten or twelve of the finest varieties I had, or could get, and obtained large, vigorous plants of the same kind from our New York gardens. One of each was planted by itself, where it could not hybridize. In another bed I planted all the varieties together to make them hybridize, and multiply new kinds.

I succeeded in getting one variety, which I

found superior to any I had ever seen, in the following qualities—*delicacy of flavor, thinness and smoothness of skin, fewness of seeds, solidity of meat, earliness of ripening, richness of color, evenness of size and ease of culture.*

2d. *My mode of culture.*—Germinate in a hot-house, hot-bed or kitchen; for very early fruit, transplant when quite small into pots. The tomato improves by every transplanting, and each time should be set deeper. From the time four or six leaves appear, pinch or cut off the larger lower leaves and the terminal buds, and continue this process of pruning, till the fruit is far advanced; so that when ripe, the bed will seem to be covered by one mass of large, smooth, even-sized tomatoes, of the richest pomegranate color—and the leaves hidden by the fruit.

Set the plants three or four feet apart, in the warmest spot you have, and let them fall over to the northern frames twelve or fifteen inches high; or on pea brush or anything to sustain them; keep the fruit from touching the ground, which delays ripening, creates mould, invites cut-worms, and always gives the tomato an earthy taste. Try for only one cluster, (the first that blossoms,) and cut everything else gradually away. This will give you tomatoes in perfection in the latitude of Buffalo, four or six weeks earlier than they are usually ripened in our climate. If you wish late tomatoes, pull up each plant by the root (just before the frost comes) and hang them up on the south side of a building, top down, with a blanket to roll up days and let fall nights. When ice makes, hang them up in any room that does not freeze, or in a dry cellar, and you will have fresh tomatoes all winter—somewhat shrivelled, but of fine flavor.

C. EDWARDS LESTER.

#### ROWE'S PATENT DRAIN TILE.

Most enlightened cultivators are of the opinion that great advantages are to be derived from the drainage of our lands; not merely the swamps, meadows, and low grounds,—but large portions of the uplands, such as have been used for tillage and grass lands for many years. Wherever this latter class of land is underlaid with clay, it needs draining, even though a spring cannot be found upon it,—for the surface water passes down to the stratum of clay, is there intercepted, and goes off so slowly as to become almost like stagnant water,—is cold, prevents the proper atmospheric action upon the soil, and is exceedingly repulsive to the roots of plants. They will not penetrate into it. If this water is taken away, the proper circulation takes place, the subsoil cracks, becomes light, is enriched by the ammonia in rain water, and the heat which is left by it as it passes down, and makes a new farm underneath, which undrained land does not possess. The surface soil is also greatly benefited by being made more porous and mellow, is enriched by receiving valuable fertilizers from the air and dews, and becomes capable of withstanding drought longer than undrained lands.

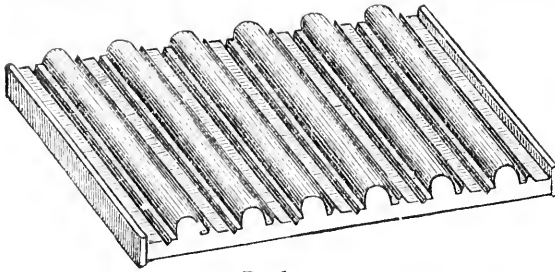


FIG. 1.

These opinions are now common, and are leading men to look with interest for something that is effective, cheap and portable, whereby they can secure the desirable results already mentioned at a paying cost.

So far, among us, we have only used the *sole tile*, and those have been made in so few places, that their transportation often costs more than the tile themselves. We need some form of tile to answer the purpose of draining, that will enable any farmer to make them himself, on any farm where suitable clay can be found; that is, to make them in common moulds, similar to the brick-maker's, or by some simple and cheap machinery which he can manage himself.

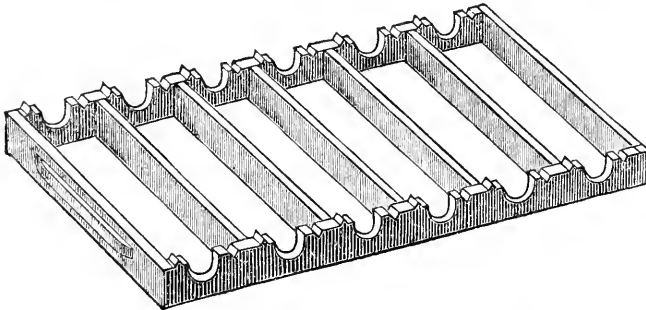


FIG. 2.

This desirable result seems to have been attained in ROWE'S PATENT DRAIN TILE, which we have figured on this page.

A machine to make tiles a foot long is similar in every respect to a common brick machine, and will cost but a trifle more—say forty dollars, or even less, including three sizes of moulds. The manner of making the moulds will be best understood by brick-makers by observing how brick

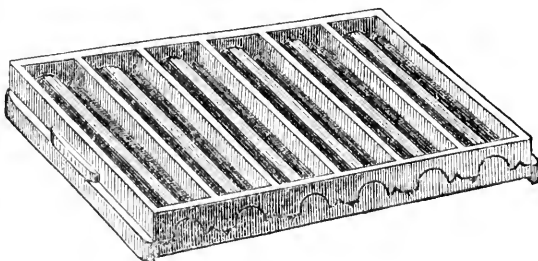


FIG. 3.

moulds could be changed into tile moulds if they were as long as tiles are made.

Fig. 1 represents the slide fitted up with cores, tongues and grooves, each equal to the number of tiles to be struck at once.

Fig. 2 represents the mould fitted to receive the slide.

Fig. 3 represents the two united, forming a tile mould complete, requiring but the same motions to make tiles that it does to make bricks. Those who mould bricks by hand can mould these in the same way, from the smallest aqueduct size, up to the size used for street culverts, without any extra outlay except for the moulds. The stock that will make two

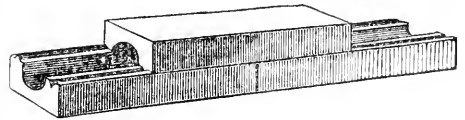


FIG. 4.

common bricks will make one foot of  $2\frac{1}{2}$  or 3 inch tile of the oval, or most approved form—large enough for sub-mains, and not objectionable on account of size, for minors—being the two sizes mostly used by farmers.

Fig. 4 represents a section of drain laid, showing how the tile break joints upon each other, holding all in line and affording two feet of extra seam to every foot of drain, allowing the joints to be laid so close as to keep out the dirt without danger of

excluding the water.

We learn from the general agent, Mr. A. K. GILE, of Alfred, Me., that the different sizes of this new tile can be afforded so low as to compete with the prices of any tile yet introduced among us. If this be so, the points gained will be,—

1. The locking of the tile together by means of their seams, and thus preventing their being moved after they are once laid.
2. Their being made on any farm where suitable clay is found.
3. In burning or baking them without the use of an oven, as they are to be burned upon the sides or ends, as common bricks are burned.
4. The saving in transportation,—as in many cases now, transportation costs as much as the tiles themselves. It

is probable that most farmers live as near a brick yard, or clay pit, as they do to a railroad station,—so that the hauling by team would be only about the same as from railroad stations.

*For the New England Farmer.*

### DRAINAGE.

LETTER FROM NORTH CAROLINA.

HON. HENRY F. FRENCH:—*Sir*,—If the Greeks would always bring us such gifts as you present in your treatise on Farm Drainage, our country would be the happiest and most prosperous in the world. I do not intend to write you a political essay; being an old Federalist, I am of course but a “looker-on in Vienna.” For your comfort, I will venture the assertion, that, from my standpoint, I plainly see that after crimination and recrimination, there will be mutual concessions, and all will wheel into line, excepting the State of South Carolina, in which the delusion is so morbid as to require some two or more years of suffering to effect a cure.

But to the purpose of my letter. I have read and re-read your treatise, and at rather an advanced period of life have inaugurated a system of underground drainage, which I cannot in the course of nature expect to complete, but which I hope to leave in such a condition as to induce those who follow me to perfect; and thinking that your position justifies me, I venture to ask a few questions, which I hope will not be considered an intrusion.

1. I cannot without a very heavy outlay of cash procure tiles, unless I can manufacture them myself. I have substituted pitch pine lumber; sawed 2, 3, 4 and 5 inches wide by one thick; by putting the 2 and 3 inch pieces together, I procure a vent (for side drains) of 2 square inches; 3 and 4 gives me  $4\frac{1}{2}$  inches, and 4 and 5 of 8 square inches. I put the plank together at right angles, thus  $\wedge$ , using no bottom plank, unless (which is rarely the case) the bottom is miry; the angle is at the top, and generally the bottom being a hard clay, with the slight fall I am obliged to give the drain there is no wearing of it; the cost of the materials, exclusive of carting, is, respectively,  $2\frac{1}{2}$ ,  $3\frac{1}{2}$  and  $4\frac{1}{2}$  cents per lineal yard; this is exclusive of the cost of nails; the labor of putting them together, excavating and filling is done by my “African fellow-creatures,” who excavate 4 feet deep, 22 lineal yards a day. The obvious objection to this plan is the liability of the plank to decay. If I could be certain the plank would never get dry, I should be also certain that they would be indestructible. I should like to know your opinion on this subject. I have inaugurated some extensive experiments to ascertain that fact, but it will take some years to obtain accurate results.

2. My farms are generally what we call river land, viz.: either alluvion proper, and more subject to inundation, or lands which were, to all appearance, in years long gone by, formed by the river. Generally it lies in ridges with intervals, the inclination being with the course of the river; these ridges are in places very obvious; in others it requires a nicer observation to detect

them; in places the fall is considerable, but the general inclination is something like two feet to the mile; with small exceptions the soil, after some two feet, is a very firm and tenacious clay. I have excavated large, open ditches, the whole length of the farm, which I dare not cover, as at times they are absolutely necessary to carry off the water of inundation. I carry the covered drains into these ditches, or some branch of them, which I think safe to leave open; the covered drains are four feet deep. I always run the main covered drain in the interval between the ridges above mentioned.

3. I cannot procure either small stones or gravel to commence filling up with; I have generally to use cornstalks, and principally what we call shucks, and you call husks; to a limited extent I have used the leaf of the pitch pine, and to a more limited extent, pitch pine saw-dust. I could very easily use corn cobs, either just clean or in various stages of decomposition; they rot rapidly.

4. The country being so flat, a rapid fall cannot be given to the drains; if it should be tried they would soon run out to the surface. I have adopted the rule of giving one inch in every thirty-two yards, and if I cannot maintain a depth of four feet at that rate, I cut at right angles to an open ditch in a lower level, cover the cut, and go on again.

Now, my dear sir, having given you the principles which, in adherence to your treatise, I have adopted, and the general character of my land, there arise a number of questions which I may now venture to address to you, viz.: How far in a close clay soil will a four foot drain probably affect that soil? In putting down lateral drains from the main drain, (vide No. 3 above,) how far is it best to run them on, and into the ridges above mentioned? What distances should the lateral drains be apart, so as to insure upon such land a discharge of the entire fall of rain without the aid of open ditches? I have thus far put them 60 feet apart. Is a fall of one inch in thirty-two yards sufficient without a great many lateral drains? Supposing two open ditches, 100 yards apart, without any perceptible falls between them, would a perfectly level covered drain connecting them, maintain itself open, so as to be valuable, or would it be best to drain from the bottom of one to say within six inches of the bottom of the other, (alternately,) giving each all the fall that can be obtained?

I wish very much to manufacture my own tiles, preferring tiles to lumber. Have you any additional information as to tile machines? and is clay which will make a good brick suitable for tiles? There are other matters which may rise from the points above mentioned, which may strike you, and pass unnoticed by me; any information will be most thankfully received. The main doubt in my mind as to my system is whether I am not wrong in using lumber rather than tiles. I find the cash cost of tiles to be about double that of plank; there is less carting, and the tile are put down more rapidly.

There is one peculiarity of my position which renders me rather anxious. I live at or near the extreme northern limit of the cotton culture. By rendering my land dry, and of course warm, I give length to the season, and make the crops more certain. I have a kind of land, which I

think is the best in the world ; a deep sandy loam upon a heavy clay, say three feet under the surface. Is it worth while to underdrain such land? I make no excuse, my dear sir, for troubling you, because I act upon the great rule of doing as I would be done by ; and your position is such as, in a measure, to justify inquiries. Should you be able to answer this, be pleased to address me at —, North Carolina. Believe me,

Most respectfully yours,  
North Carolina, Jan. 26, 1861.

A N S W E R .

Boston, Mass., Feb. 16, 1861.

MY DEAR SIR:—Your very acceptable letter of the 26th ult. was received at Exeter, where I was attending court, but where I do not now reside. Although I desired to reply forthwith to your inquiries, and to show you that there were no treacherous foes concealed in my "Greek gifts," as in the Trojan horse, I have not had the time in which to do it.

As to secession, every letter I receive from the South, and they are frequent, on the subject of agricultural improvement, gives me a new feeling of regret that we, who are united by so many bonds of interest and fraternity, should so foolishly cast away the blessings and the glory of our great birthright, and sink ourselves into enemies to each other, and our glorious country into insignificant powers among the nations. Your State has thus far done nobly, and I trust your prophecy of future peace may be realized.

You will not, I trust, deem it a breach of confidence if I publish the greater part of your letter, without your name, to show how, all through the country, we find an interest in the subject of it.

1. Your wood drains will operate perfectly so long as they are unobstructed. On a clay bottom they will probably not fill up, but if by the working of moles or other animals, the surface water should find passage down to them, they are liable to be obstructed and ruined. I understand you are on the Roanoke river, navigable far beyond you by canal. At Albany, N. Y., you can contract for tiles, at say \$10 per 1000, for two inch, on board a schooner. The freight you can estimate. I think you could get tiles from Albany, and lay them nearly as cheap as your wood drains. The excavation will be less. The tiles are indestructible, and their operation perfect. I can suggest a better course than this, and that is to make the tiles on your own estate. In England this is often done, where large tracts are to be drained. With New England "help" you could readily do this, but whether your "African fellow-creatures" are reliable enough for such new enterprises, I do not know. I certainly would use tiles if possible, in the inauguration of your extensive operations. What you do, will then be done for all time, whereas your wood conduits

will be like the cathedral at Cologne, needing repairs at one end, while the other is yet incomplete. Tiles are freighted to Boston by schooners, every season, from Albany, although we have tile works in several places in the State. My advice is, "Get tiles if possible, if not, use wood, as better than not draining." I have no certain information as to tile-making, beyond what my "Farm Drainage" contains. A new kind of tile made of cement and sand or gravel unburnt, is made in Boston. Whether it will prove durable, I dare not say. I have never yet known any clay that would make good brick, fail on trial to make good tiles, though the tile-makers will certainly tell you that it requires some very peculiar clay, such as you cannot find, to work into tiles. If you have brick-yards near, you can get a machine and have the tiles moulded, and burn them in the kiln with bricks. I have seen this successfully practiced, both in England and this country.

2. If you run tile drains into your open ditches, see that the latter are kept clean, so that the tiles may not be obstructed. With this view, I should let the open ditches be a foot deeper than the tile drains.

3, 4. What are called close clays differ very much in consistency, and nothing but actual trial will decide for you. I have never in this country seen drains four feet deep fail to drain perfectly, at any distance. I have laid them at 50 feet, and they operate well. In England they are sometimes put as near together as 16 feet, but that is in land which you and I should move away from, as hopeless. Over tiles I should not put corn "shucks," stones or gravel, but merely the surface soil first—anything but puddled clay. Saw-dust or straw over your wood drains will do well enough. In laying drains from one open ditch to another, I should divide the fall, laying the drains highest in the middle, falling to each ditch if the land is level. In your State, where frost will not trouble you, I should in 100 yards distance make the drain three feet deep in the middle, and four feet at each end, giving a foot fall in 50 yards. In large main drains, water will run freely, if perfectly level, if there is fall in the laterals which run into them ; for manifestly that fall is so much head for forcing out the water in the mains which lie lower. As to your sandy loam of three feet on clay—such land is very easily drained, by cutting a few inches into the clay for the drains. Probably at 100 feet distance, drains would essentially relieve such land of surplus water, and give you a warmer soil and longer season.

I have thus endeavored to reply to your inquiries. In clay land, you will find increased efficiency in your drains every year, the soil becoming more and more open by the passage of wa-

ter through it. If I can in any way be of service to you in future, I hope you will call on me without hesitation.

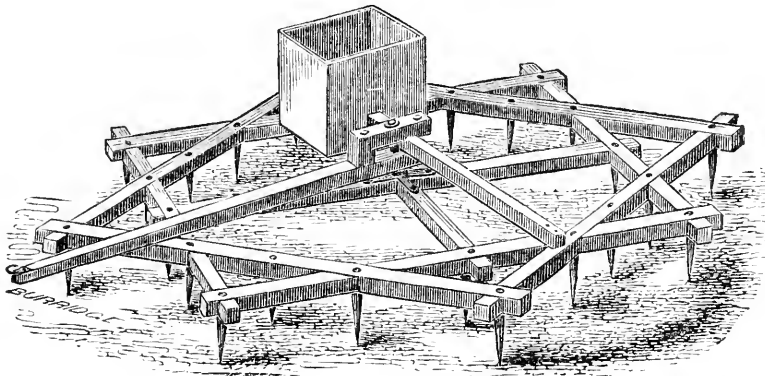
Among my pleasant anticipations is this, that at some not far distant day, when peace shall again smile upon us as a happy and united people, I may visit the homes of the "sunny South," observe your "peculiar institutions," and meet face to face, gentlemen like yourself, in whose devotion to the interests of agricultural as well of national prosperity I so deeply sympathize.

I am, with much respect,

Truly yours, HENRY F. FRENCH.

#### HOGLE'S ROTARY STAR HARROW.

This new harrow, which is advertised in the appropriate department of this paper, and which we



now figure above, we have never tested in the field, and have, therefore, no personal knowledge of its merits. We insert, however, what others say of it, cheerfully, because it seems to us to be a good implement, and that all may have an opportunity of availing themselves of so important an article, if it really does prove to be what it is represented.

This harrow is highly recommended by those who have used it, and the following is said of its peculiar advantages:

Among its many excellent qualities over all other harrows, are the following: It has no side draught, but follows straight in the line of draught of the team; it will not clog, but has a steady, uniform and continual rotary motion as it is drawn forward; it will harrow and cross harrow at one passage; will not hitch on to any obstacles, such as trees, stumps, roots, stones, &c.; will cut or rend to pieces the heaviest sod, and finely pulverize all lumps of earth; will evenly distribute over the ground, and in a great measure bury or cover up manures or composts of any kind; will level and render smooth the surface of the ground, filling up all inequalities; its teeth never follow in the track of the teeth of the preceding passage; will distribute more evenly and cover deeper seed of

any description, and doing it in every respect far better than any other harrow in existence, it also prepares the ground better for the reception of seed than any other; is a self teeth sharpener; will pull up corn stalks or stubble of any kind, shake the earth from the roots, and leave the same evenly scattered on the surface of the ground; has one third less draught than any other harrow of like weight and number of teeth; is much more convenient in the handling, the draught bar being flexible, and therefore turning with the team without moving the frame. In short, summing up its excellent qualities into one sentence, it is asserted with perfect assurance, that in one passage over the ground it does three times the work of any other harrow extant. All these things will at once become evident to any one upon close examination, particularly upon seeing it in practical operation.

The box attached is intended for the reception of any material having weight, such as stones, sod,

gravel, &c., the quantity varying in accordance with the quality and condition of the ground. On loose light soil the box should be slipped (being movable,) out to the end of the weight beam and lightly weighted. On hard, heavy soil, the box should be moved, on said beam, as near to the centre as possible, and heavily weighted. Of course the judgment of the user must in each case determine the position of the box, and the quantity of weight necessary. By changing the box on the weight beam, from one to the other side of the harrow, the direction of the revolution is correspondingly changed, which is often desirable, as for instance, on a hill side.

*For the New England Farmer.*

#### SHEEP CULTURE---DOGS AND POVERTY.

MR. EDITOR:—The reports of the Legislative Agricultural Society, as published in the *N. E. Farmer*, are attracting much attention here in New Hampshire, by which it appears that dogs are no less a curse in Massachusetts than here. Can any respectable man, who would be considered a good citizen, encourage, by example, the keeping of a dangerous beast, much less a useless dog, to the annoyance and injury of his neighbors? Will he say in excuse, that dogs are a safeguard against thieves? or that they some-

times save life from drowning? It may be so. But is not the amount they destroy tenfold more than what they save by their protection? and are there not ten lives lost by the horrible death of hydrophobia to one saved by them?

I know not whether dogs take to meanness or meanness to dogs, but this I know, I rarely see a strolling vagabond without one or more dogs at his heels, or pass through a beggarly neighborhood, where shingles and clapboards had left their dwellings, doors and window-shutters their hinges, and rags and old hats supplied the place of glass, without having to run the gauntlet through a swarm of "mongrel puppies, whelps and hounds, and curs of low degree." We all know, when a man begins to grow poor, he will get him a dog, and when very poor he will get him two, and when so poor that he cannot live without going to the poor-house or begging, he will go to raising dogs.

Dogs, and in general their owners, are a nuisance, and if I were capable of writing for a paper, I should like to give a piece of my mind, or if I were Henry Ward Beecher, I would try to make myself useful, and preach against dogholders instead of slaveholders.

You may rely upon it, that those reports are highly appreciated. HENRY S. PERRIN.  
*Orfordville, N. H., Feb., 1861.*

*For the New England Farmer.*

#### INFLUENCES OF FARM EMPLOYMENTS.

Seeing an article in the *Farmer* written by a young farmer, in which he speaks of the idea of degradation attached to labor, I thought I would express my ideas upon the subject. The truth of his remarks cannot be gainsayed. Why it should be so, is to me incomprehensible. The history of ancient and modern times is filled with instances of men who, having been called from the plow or the work-bench to perform some great act, and having performed it, returned again to their avocation. The greatest gentleman or lady of the land has to depend upon labor for everything they eat or wear. Farming is the foundation of all industrial pursuits. Whatsoever advances the farmer's interest, advances the interest of the whole.

This "Young Farmer" goes on farther to ask the question, would not the public good be much better promoted by dispelling this idea, than by founding agricultural colleges or adding agricultural departments to those in existence? I ask, would not the founding of these schools and colleges have a greater tendency to dispel this illusion than any thing else? Many people think any clown can farm. They think so because they see the great mass of farmers have a more limited education than any other class. This is not as it should be. If anything, farming requires more science and skill than any other pursuit. Any one can become a very good mechanic after two or three years' apprenticeship, but to become a skilful farmer, one has to commence in boyhood, and work at it until manhood, and then not conquer one-half of its details. If he wishes to try anything new, he has to experiment upon it for years before he can come to any satisfactory result. Let us have our agricultural schools and

colleges, then, where we can go and learn to analyze our soils, our crops, and fertilizers, and know the constituent elements of each. Then shall we understand what principle each rod of land possesses in abundance, and what it lacks. We can then apply the right manures in the right places to produce a certain crop. Then will farming be raised to its proper standard in the estimation of the people.

*Harvard, Feb., 1861.*

E. R.

*For the New England Farmer.*

#### THE AIR PRESSURE CHURN.

MR. EDITOR:—The communication of "K. O." in your paper of Feb. 23, in relation to the Air Pressure Churn, deserves our thanks and our prompt notice. The author is entirely unknown to us, and we have no reason to suppose that he is the possessor of a churn that has been manufactured by us. The few churns of this class which were in Boston market last year, were made by other parties, and were not constructed from as good materials nor with such thorough workmanship as those which we are having made on our own account, and on which we base the prices and the remarks in our circular which was in your paper of Jan. 12th.

The implied questions, and the points taken by "K. O.," are all pertinent and well considered, and we are thankful that he gives us fair occasion to notice them.

1. The price. Our casks are of the best white oak, put up by the best of coopers. The fitting of the heads, the driving of the bolts, and all other parts of the work demanding that there shall not be the fraction of a pin-hole for the escape of air, cause the first cost of the body of the churn to be much greater than that of ordinary oak barrels or kegs. Then, to go with this, is an air-pump, calling for costly rubber and accurate work. Also, on the churn is one patent. On the pump another, each of which has cost—including the labor by which the shapes and modes of application, have been reached—several thousand dollars.

The positive fact is, that taking the actual cost of the churn, the pump and the necessary attachments, the profit to the manufacturer is less, on this churn, than on the average of agricultural implements. We have, in fixing our prices, kept in mind the motto, "quick sales and small profits."

We know that most farmers will consider \$12 or \$15 too much to pay for a churn. It seems too much, and yet, perhaps they cannot afford to do without this churn. For, if there be, as experiments thus far seems to prove that there is, from 7 to 10 per cent. gained in the quantity of butter by the use of the Air Pressure, then the farmer who keeps five cows and makes from them 700 lbs. of butter per year, will have gained about 50 pounds of butter in a single season, and that amount of butter will buy the churn. This state of facts will show the farmer that ten years' use of this churn will earn for him \$100, and, therefore, it is for his interest to buy it, even though the price seems high. The purchaser will get more than nine-tenths of the profit, if the apparent facts shall be established by general experience, as we believe they will.



2. The brass hoops actually cost a little more *extra*, than our extra charge. The iron hoops give us a little more profit than the brass.

3. The method of putting in the head, or rather the bottom. At present we are conforming to the shaker method as far as is consistent with strength and durability.

We will close, by adding that we feel confident of the truth of the remark recently made by a distinguished agriculturalist of New England, that "as soon as the real merits of the Air Pressure Churn are known, it will supersede all other churns in use."

N. E. AIR PRES. CHURN CO.,  
51 & 52 North Market Street, Boston.

*For the New England Farmer.*

### BREED OF CATTLE

BEST FITTED FOR THE FARMS OF MASSACHUSETTS.

No one who has taken an interest in the agriculture of the State, for the last 40 years, can fail to appreciate the importance of this question. Next in value to the land we till, is the stock upon it. What breed of stock, all things taken into view, is it best to obtain? That is, suppose a man is starting in life, to pursue the occupation of a farmer, to secure a living thereby, what class of animals shall he introduce upon his farm? There are the Durhams, or short horns, the Devons, the Ayrshires, the Alderneys or Jerseys, and last, though not least, the New England or natives. Each of these have their good points, and each have their exceptions. A very large part of all the animals on our farms are what are called natives, and such as have sprung from crossing with the other classes. When we say natives, we do not mean that they sprung from the soil, but they descended from importations made so long ago, that "memory runneth not to the contrary," and they have become acclimated here.

So far as I have seen and learned, after much observation of animals, I am of the opinion, that the natives are the best animals to introduce upon our farms. In the first place, they can be obtained at half the expense of either of the other classes. No man can import an animal from Europe, at less than \$100 expense. The best of natives can be bought for \$50. If a herd of 20 head is to be formed, here would be a saving of \$1000 in starting, or \$60 a year, an item worthy of consideration by those who work for a living; and it is for their benefit alone that the subject is worthy of discussion.

It was a favorite idea of Col. Pickering, one of the pioneers of agricultural improvement in Massachusetts, that as pure animals can be reared by selecting the best of our native stock, and paying attention to their breeding, as could be obtained in any other manner.

First, see to it that your bulls are of the right age and form, and properly trained for the service expected of them. They should be fed with as much liberality and care as any other animal, and they should not be over worked. They should be of the right parentage. Many seem to think it of no consequence, if he be but a bull, whether he have a straight or crumpled horn, whether he be raw-boned or gawky, plump or sleek, whether he have descended from a good milking family,

or otherwise. Now the milking properties of the offspring depend quite as much upon the bull as upon the cow that bears them. I have known good milkers thus to be continued in the same herd, for many generations.

Feb. 25, 1861.

P.

### EXTRACTS AND REPLIES.

#### HUNGARIAN GRASS.

I wrote you about this grass last year, but having more experience now, I write again. Last spring I sowed the seed about the time of planting corn, on sward land just plowed. The year before the land yielded half a ton of hay to the acre, where I cut over two tons of the Hungarian grass! On a rich, strong soil, I have cut four tons to the acre, on good sandy loam three, and on a rather poor sandy soil, one and a half to two tons. Cut early, cattle and sheep eat it better than other hay. Cows fed on it after the seed is threshed out give more milk than they did on stalks, or other hay. It is a very easy crop to raise. The seed will weigh fifty pounds to the bushel. A neighbor sowed five bushels of seed on ten acres, and thinks he cut twenty-five tons of hay. Some of this he allowed to ripen, and threshed from it seventy-five bushels of seed. Another neighbor plowed green sward, sowed in June and raised a large crop. Sowed in May or the first of June, and cut early, the hay will be better than clover or herdsgrass. The seed sells for from \$4 to \$5, per bushel, some of which may be obtained in this vicinity.

Painesville, Vt., 1861.

H. GRIFFIN.

#### LIME AS MANURE.

I have just commenced farming and want you to tell me about lime for manure. Fresh burnt lime costs here seven cents per bushel; will it pay to use it freely? On what kind of soil is it best? To what kind of crops is it best adapted, and is it good for all? What is the best manner of applying it, and how many bushels to the acre? Is it good for old apple, pear and cherry trees? Will it make good compost mixed with mud from the banks of a river? If so, in what proportion?

The farmers of New England give more attention to the different kinds of manure than those of other sections of our country, and seem always ready to impart information, so I want to benefit by their experience.

A. H.

Norristown, Pa., Feb., 1861.

REMARKS.—We will lay before our correspondent what Professor JOHNSTON says in relation to the effects of lime upon different soils, and then he can judge for himself whether it will be profitable to use it.

The purposes served by lime as a chemical constituent of the soil are at least of four distinct kinds:

1. It supplies a kind of inorganic food which appears to be necessary to the healthy growth of all our cultivated plants.

2. It neutralizes acid substances which are naturally formed in the soil, and decomposes or renders harmless noxious compounds which are not unfrequently within reach of the roots of plants.

3. It changes the inert vegetable matter in the soil, so as gradually to render it useful to vegetation.

4. It causes, facilitates, or enables other useful compounds, both organic and inorganic, to be produced in the soil, or so promotes the decomposition of existing compounds as to prepare them more speedily for entering into the circulation of plants.

The fertilizing properties of lime, then, appear to arise, in a great measure, from the force with which it attracts carbonic acid from the atmosphere or soil to which it is exposed. This attraction for carbonic acid is so powerful, that if lime be placed in contact with animal or vegetable matter, they are decomposed or dissolved with great rapidity, and reduced to a fit state for entering the roots of plants. It is for this reason that we see such good results from the application of lime upon soils where green crops have been consumed on the land, or where any of the various plants used for that purpose have been plowed in green. It also produces equally good effects, and for the same reason, in soils newly broken up; in fact, in all soils rich in humus or vegetable matter.

But the chemical action of lime is not confined to the decomposition of vegetable and other organic matter in the soil. It appears to be clearly established by the experiments of agricultural chemists, that this substance has also the property of setting at liberty the alkalies which are present in exceedingly small quantities in the soil, favoring the formation of soluble silicates, which are useful to all of our crops of grain. Lime, however, not only acts chemically, but to a certain extent it is also useful by altering the mechanical nature of the soil. For instance, it renders clayey soils less tenacious; and it is also stated that it makes sandy soils firmer, and loamy soils soft, mellow and light. Such is briefly all that is known at present concerning the chemical properties of lime.

#### ABOUT A LOW BROOK MEADOW.

I have a few acres of low brook meadow, much run out, on a part of which the long white moss is struggling hard for the ascendancy. I have partially drained it, cutting ditches and lowering the bed of the stream. There were obstructions in the brook which caused it to overflow at every freshet, and the ground thus overflowed yielded large crops of grass. I have recently built a dam by which the whole meadow can be overflowed at pleasure.

Now, what I want much to know is, at what time and how long should the water be kept on? How can the moss be exterminated? There is yet a very little fowlmeadow grass in small patches; if the ground is kept sufficiently moist, will this grass spread of itself, or should seed be sown? If so, how much seed to the acre, and where, and at what price, can it be obtained?

Royalston, Feb. 16, 1861.

J. WOOD.

REMARKS.—Put the water on while the plants growing upon the meadow are in the flush of vegetation, and let it remain until the next spring. To kill the plants effectually, it is best to keep the meadow covered during the hot weather. We

have known some meadow land covered with water three years, before the plants, including bushes, growing upon it were killed. The plants in other meadows are sometimes destroyed in a single season. Do not depend upon the patches of fowl-meadow now starting, but clear up the land and sow afterwards a bushel of seed at least to the acre. It is scarce, but you may find it at the seed-stores.

#### HOW TO RELIEVE CHOKED CATTLE.

There has been considerable discussion in the *Farmer*, of late, about cattle choked, and the best remedy to relieve them. I have read all the remarks that have been made on that subject, but they did not agree with my views as to the best remedy.

The instant a creature becomes choked, no matter what with, the throat becomes dry, and the longer the substance remains, the dryer the throat. The following is a sure remedy. Take some oil, no matter what kind, and hold the creature's head up and turn down about one gill of oil, and then let go of the head, and the creature will heave it out in two seconds! I have tried it for years, and never knew it to fail.

Poland, Me., Feb. 9, 1861.

#### WORMS IN HORSES.

I have a horse that is troubled with worms. I have tried various methods to cure her, but with no success. She was formerly very free to travel, and in good spirits, but now she is slow, and seems to have lost all animation. Will you recommend a remedy through the columns of your valuable paper.

A SUBSCRIBER.

Exeter, Feb. 2, 1861.

REMARKS.—Sift wood ashes, and mix one gill of it with the horse's cut feed; one dose every other day for a week. Watch the result.

#### FOUL OF THE FOOT IN CATTLE.

A correspondent in the *Monthly Farmer* for February wishes to know a cure for foul of the foot in cattle.

The following is an almost certain remedy:—Take a small quantity of soft soap, and stir in as much fine salt as it will take up; clean out the creature's foot and rub in the mixture. Two or three applications will effect a cure, usually.

Why would it not be good for scratches in horses?

M. H.

Pelham, N. H., 1861.

#### ON SETTING FENCE POSTS.

Principles will satisfy some persons on questionable points, where, for want of opportunity, they could not have demonstration. But where and when it is available, it is worth seeking. Reliable testimony comes next. This article is to add my own experience from early life, by way of endorsement, to some good articles (commended by yourself) for some inquirers, "On setting fence posts," with ditches and small stones, and in some situations with holes and stones, and no ditch. Always but end up; best with me cut and

peeled in June, and seasoned; young chestnut lasts better than old oak—of thrifty growth, it is quite superior.

BENJAMIN WILLARD.

*For the New England Farmer.*

#### RETROSPECTIVE NOTES.

**WISDOM FOR WINTER.**—At page 59 of current volume of the *Farmer*, there are some excellent hints for the preservation of health and the promotion of comfort—hints so evidently the product of a mind well stored with wisdom and the best lessons of experience, and so well suited for use in winter weather, as to make the title—*Wisdom for Winter*—very appropriate indeed. Of the value of one of them, my own experience, together with the results of some inquiries as to the experience of others, enables me to speak with confidence. I refer to that counsel which forbids the wearing of India-rubber boots (over shoes included, I presume) in cold, dry weather. For rubber boots or over-shoes in wet, rainy weather, or in a sloppy condition of the streets and roads, it may be difficult to find any preferable substitute; but in dry weather, however cold it may be, rubbers are liable to objections of so much weight as to make it very unwise to continue the practice of wearing them. The weightiest of these objections is derived from the fact that these articles confine the perspiration of the feet so much as to render the stockings more or less damp, according to the length of time that the rubbers are worn. The present discomfort from this cold bath of condensed vapor is but a small matter, when compared with the injury to the health which ultimately, sooner or later, results from this “going contrary to nature.” As an example of this injury, I may state that a case of incipient consumption, some years ago, became an object of special inquiry as to the cause which might have produced it, inasmuch as the young woman was not hereditarily predisposed to consumption, nor a likely subject for such a disease. After much investigation, it was discovered that this patient had been in the practice of going out among the neighbors to spin, and that finding rubber over-shoes the most comfortable and convenient article for her feet while spinning, she wore them the greater part of the day for a whole summer. This led to taking cold upon cold, and thus to settled consumption.

**SHELTERED FARMS.**—In the *Farmer*, Feb., 1861, on page 53, I find an article with the above title in which it is alleged that the orchards in Michigan have suffered severely since they have been deprived of the natural protection afforded by the primitive forests, when the country was new and the clearings were small. I have no doubt that the shelter of a belt of timber is of considerable value in protecting orchards from injurious exposures to piercing winds; but if any one should get the impression from the article referred to, or any other of similar tenor, that premature decay or death in fruit trees is more frequently owing to want of shelter than to any other cause whatever, or to all other causes together, I verily believe that such an impression would be, not only erroneous, but also pernicious by its tendency to mislead. This tendency I have seen in actual operation, leading, or rather misleading neighbors

to attribute the death or premature decay of their fruit trees to severe cold weather, when but for this erroneous impression, they might have carried their search after the cause of the death or decay of their trees still farther, and might, too, at length, have arrived at the truth in regard to said cause—which truth, like truth on all other subjects, would have proved of far more benefit to all concerned than any error, however ingenious or however plausible. In the case referred to, it seemed strange that any man should persist in attributing the death of his trees to exposure to cold, when the fact was well known that in other orchards around him there had been no death the same season in any of the trees, although in point of shelter, these orchards were not, in the least, any better protected than his own. The cause of the death of the fruit trees in this case, as it is, we believe, in a large majority of similar cases, consisted in the fact that the growth of the trees had been unduly stimulated by excessive manuring, and that their constitution and fabric had thus been “tendered,” made delicate and feeble, so that degrees of cold which did no harm to trees more healthy and hardy in their growth, killed outright those that had been forced into an unnaturally rapid and luxuriant development. Several observations in cases of premature death and decay in orchards around me, with close investigation as to the causes, have led me to the belief that most of such cases may be traced to the deterioration in the constitutional vigor and in the fabric of the trees produced by a too rapid and unnatural growth, which growth is itself the result of excessive manuring, and of a foolish making haste to bring the tree into bearing.

Now, the practical importance of what I have been endeavoring to present to the minds of the readers of this paper consists in the tendency of these considerations to help those concerned to discover a cause of premature decay and death in orchards, which seems but too little known or suspected as a cause. The cause being discovered, the effect may be made to cease. I would be misunderstood if it were supposed that I consider shelter or protection from cold winds of little or no value. It is of value; but of much greater value is an unforced, healthy, and hardy growth of those trees, to which we and our families are to look for many years in the future, for a steady supply of those wholesome and palatable fruits wherewith our Father in Heaven has been pleased to bless His human family, and most richly those of them who have searched to know His laws in regard to such matters, and who have conformed their practice to these heaven-imposed conditions and requirements.

It may be difficult for some to believe that the large and yearly manurings which are given to many orchards during the first four or five years of their growth, are in reality the cause of premature death and decay. I had at one time, some difficulty in believing that such forcing of the growth of young fruit trees by extra manuring, could make the wood and other portions of the trees so tender as to be unable to resist the hardships of winter winds and of summer scorching sunshine; but this difficulty at length gave way, after being shown an orchard in which about one-half of the trees had died in less than twenty years from the time of planting them, and for

which premature decay no reason could be assigned which was half as probable as that it was the result of forcing the trees by yearly and large applications of barn-yard manure. As this practice is not uncommon, especially with persons from New England and the East settling in some Western State, and naturally in haste to get their fruit from their own trees, this effort to show the evil of the practice may, if my theory is correct, be of value to not a few; and if not correct, its error will be exposed, undoubtedly, by some of your readers.

MORE ANON.

*For the New England Farmer.*

### HANDLING BEES---No. 3.

Now, Friend, if you will procure the implements needed by all apiarians, great and small, we will examine your bees on the first warm day of spring. For cutting out comb in good shape, you want a long knife, the blade 18 inches long,  $1\frac{1}{2}$  wide; sharp on the end and both edges, and the end square. This is to cut off the sides of the hives, and an old scythe web is the cheapest thing to make it from. Let a blacksmith flat it, and punch two holes suitable for riveting on a handle, which when on, and the blade ground sharp, will be right. Next take a bar of steel  $\frac{3}{4}$  inch square, and 20 inches long; have one end drawn to put a handle on, then draw on the other end a thin blade  $\frac{1}{4}$  inch wide,  $1\frac{3}{4}$  long, round point, sharp edges; then turn at right angles with the bar, and you have just the knife for cutting comb from the top of your hives, or procuring any part, and can insert it between the combs anywhere. A scraper is very handy for cleaning out under hives. Take  $\frac{1}{4}$  of inch wide, 20 inches long, turn a small ring on one end, flat the other into a three inch blade turned at right angles, and you have it. If you are any way timid or inexperienced you had better have India rubber gloves (which bees cannot sting through, nor will they lose their sting in these and destroy themselves) and a basket; some take wide cloth, such as bees cannot get through, yet coarse enough to be airy; a strip  $9 \times 24$  inches; fasten the two ends, put in a top of cloth, leather or board, gather on a cape round the bottom, 10 or 12 inches long, to button under your coat, and you have it; or a coarse veil large enough to put over your hat and under your coat, will answer the same purpose. Basket and gloves I shall not want.

We shall find the bees, like human beings, good-natured with full "bellies," so we take along some water in a sprinkler, if you have it, sweetened sweet with good brown sugar, which is generally a sufficient treat except in midsummer, when smoke is necessary, but we will take along a smoker. Roll up some cotton cloth tight as it will burn, (a little tobacco will make a stronger smoke,) a little larger than your thumb, and catch it together with needle and thread; now a match or two, and we are ready, and will proceed to examine. Gently turn up the first hive, sprinkle a little of the sugar water, and see them sip it; give what they will take; clean off the bottom board. Now we will look among the combs, and see if there is honey to last till they can gather; they will consume more now they are stirring and breeding; (more swarms starve at this season

than all other times;) and see if there are eggs so as to be sure the queen is "all right." Let us examine the nest; but see here, there are no eggs here; the queen is lost; this swarm will waste away; although there is plenty of honey, they will not "do anything" without a queen. Look at the next; here is some honey, but only a few bees, not enough to keep up the heat in the hive sufficient for breeding; here are a very few eggs. This swarm cannot flourish for want of bees; you can save them both by putting this small one with that queenless one. Now treat them a little more to the sugar water. We shall have to cut out two or three combs so as to get at them; do it carefully; save the comb to put in another hive, as it is worth \$1.50 per pound to stick in to start the bees in hives or honey boxes. Take a soft brush or wing and brush the bees into the other hive, and hear them sing for joy when they have found the queen on the stand. C.

*New Britain, Conn.*

### INQUIRIES CONCERNING FARMING.

MR. EDITOR:—Will you be kind enough to publish and answer the following questions in the March number of the *Monthly Farmer*?

1. Where can I obtain potato onions for seed, and will it pay better to raise them than the other varieties?
2. Is it best to plant onions and carrots together, or each separately?
3. Which will pay best for farmers generally, to raise garden sauce for marketing, or raise poultry? We cannot raise both together without much trouble.
4. Suppose I live three miles from market, and keep four cows; which will pay best, to sell butter at twenty cents per pound, or milk at four cents per quart?
5. Which will pay best to keep, cows or sheep?
6. Is it best to keep store hogs in a small yard, or allow them a lot to run in?
7. I have about ten barrels hen manure; how can I apply the same to my crops to the best advantage?
8. My land is smooth. What kind of harrow is best?
9. I shall be short for manure in the spring. I shall keep eight or ten cattle. Will it be best to plant an acre of fodder corn, or can I apply all my manure to field corn, &c., to better advantage?

*Wakefield, R. I., 1861.*

JOHN DIMON.

REMARKS.—The above was not received in season for the March number of the *Farmer*. In order to get the Monthly off to subscribers promptly, we are obliged to have it printed, folded and stitched, ready for mailing, ten days previous to the month for which it is designed.

1. *Potato Onions* may usually be found at the seed stores. We have no positive knowledge as to the comparative profit.
2. *Onions and Carrots* are not usually planted together by those who raise large quantities of both. We have never seen them in alternate rows among the onion growers in Essex county.
3. *Poultry and Garden Sauce* do not harmonize very well, until they are cooked and laid upon

the table. If you are near a good market, where you can reach it once or twice each day with early vegetables, there would be more profit in raising vegetables than poultry.

4. Sell the milk at *four cents* a quart. As an average, it will require, at *least*, six quarts of milk for a pound of butter, (and probably more,) which, at four cents, would be twenty-four cents. If it should require eight quarts, you would get thirty-two cents—twelve cents more than you would get for the butter; but if you made butter you would have the skim and butter-milk, so that the difference, (saying nothing of the labor required to make the butter,) would not be material.

5. *Cows or Sheep.* We cannot tell. It depends upon circumstances. What your farm is, where you are located, how much skill you possess, &c.

6. If you keep hogs to labor for you, as you do a hired man, and wish them to root up a lot, or overhaul manure, then you must arrange them accordingly; but if you keep them, as we do, to eat largely with a good appetite and grow fast, you will have them in a place where they can go to the ground, or to a dry, warm bed, at their pleasure. You can then dress them at about twelve months old weighing between four and five hundred pounds, and at a cost of five or six cents per pound. It is a common practice for pigs to run on the manure heaps—we doubt whether any special advantage is derived from it. We should prefer to have it left as thrown down. Horse manure heats, and must be scattered occasionally; but if muck or loam were mingled with it, fermentation would, in a great measure, be prevented. The advantage of having the pigs in the manure cellar is, that it affords them shelter and warmth, and saves the expense of a regular piggery. When our hogs eat and sleep well, and work but little, we find the most profit in them. A good farm hand, by devoting one hour in a week to the manure heap, will do more good than a pig will by rooting over or trampling it down. When a pig roots, he expends the milk and meal you have fed to him, in that labor, instead of laying on flesh and fat with it. If the swine are kept by themselves, however, they should be well supplied with all proper materials for making manure.

7. *Hen Manure* is good guano. Mix it thoroughly with old muck, sand or loam, until no lumps remain, ten or twelve parts of loam to one of the hen droppings. Apply a handful to the hill for corn, or use it in drills about the garden. Few fertilizers are equal to it.

8. Do not know what harrow is best. Have not used them all. Holbrook's hinge harrow is an excellent one; so is Bucklin's, especially where the furrows are very tough.

9. You cannot raise *fodder corn* profitably by subtracting the manure for it from your corn field. If you must have the fodder, plant a less breadth in corn, and manure it well as far as you go.

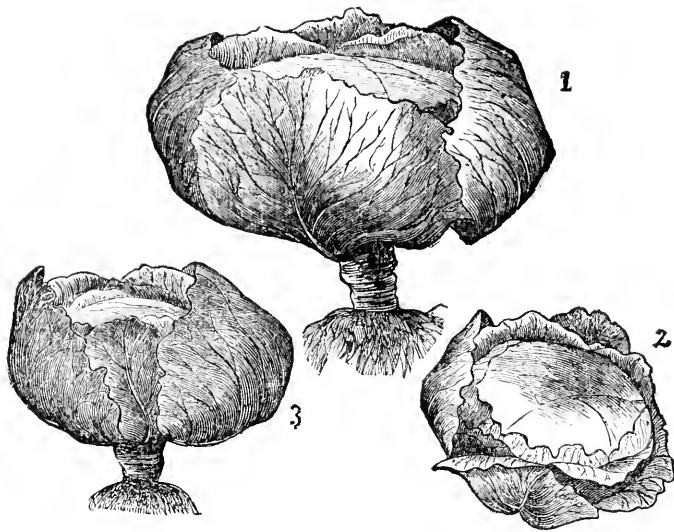
For the New England Farmer.

#### HOBART & SPAULDING'S HARROW.

It is now conceded by all good cultivators that the thorough harrowing and pulverization of the soil is as necessary to ensure extra crops as good plowing. Having more than twenty-five acres of ground to seed with grain and grass in the spring of 1860, some of it being very tough and full of meadow grass roots, and being satisfied that the straight tooth would not pulverize the soil and mix the manure with it, I purchased one of the Pepperell Harrows. It has answered the purpose completely. I first tried it on a swamp which had been planted with potatoes, then grass, and gravelled in '59 with one large ox load to the rod, and then the effect was to intermix mud, manure and gravel, and reduce the land to an even surface as no other harrow would have done. I then used it on a low piece of springy ground, where the soil was about ten inches deep, and plowed the November before. This land was underdrained and reclaimed some twenty years before, but meadow and hassock grass had worked out the better kinds, and reduced the crops to less than fifteen hundred pounds to the acre, and by running this harrow both ways, it was made as fine as an old field. The crop of oats was abundant, nearly paying all the labor, with a fine prospect for grass the present season. I also tried it when wood had been recently cut, and although many small stones and some large ones were in the way, still the work was so much better done than with any other harrow, that I recommend its use even then. I have no hesitation in saying that it clogs less and does the work better on hard land than any other harrow in use.

Concord, March 11, 1861. E. WOOD, JR.

FINDING FAULT WITH YOUR CHILDREN.—It is at times necessary to censure and punish; but very much more may be done by encouraging children when they do well. Be, therefore, more careful to express your approbation of good conduct than your disapprobation of bad. Nothing can more discourage a child than a spirit of incessant fault-finding on the part of its parent; and hardly anything can exert a more injurious influence upon the disposition both of the parent and child. There are two great motives influencing human actions—hope and fear. Both of these are at times necessary. But who would not prefer to have her child influenced to good conduct by a desire of pleasing, rather than by the fear of offending? If a mother never expresses her gratification when her children do well, and is always censuring them when she sees anything amiss, they are discouraged and unhappy; their dispositions become hardened and soured by this ceaseless fretting; and, at last, finding that, whether they do well or ill, they are equally found fault with, they relinquish all efforts to please, and become heedless of reproach.



THE MARBLEHEAD DRUMHEAD CABBAGE.

Above we give cuts of three new cabbages. We have not cultivated them, but are justified in showing them to the world, and in giving the propagator's account of them, by the high praise bestowed upon them by some of the best market men in Boston.

"A variety of cabbage that has triumphed over all other varieties, and established itself as a standard in the markets of Boston and vicinity, well deserves a history. These three engravings represent the three standard varieties of the Marblehead Drumhead Cabbage, when they have completed their growth. No. 1 representing the "Marblehead Mammoth Drumhead;" No. 2 the original "Mason," and No. 3 the "Stone-Mason."

*History.*—In the year 1838, Mr. John Mason, formerly of Marblehead, Mass., received a package of cabbage seed from John M. Ives, Esq., of Salem, Mass., which that gentleman received, for trial, from a firm of market gardeners in London. The seed were planted, and produced many varieties of cabbage, among which were two or three heads whose strongly marked characteristics so recommended them, that they were carefully set aside for seed purposes. These two or three cabbages were the originals of the MASON Cabbage, though I doubt not that its great reliability for heading has been increased by great care through a series of years in growing seed from the centre shoot only.

*Stone Mason.*—The farmers of Marblehead, having succeeded so well with the "Mason," sought to obtain a cabbage that should have all the excellent characteristics of the original Mason, with an increase of size. By care in selecting seed for a series of years, the Stone-Mason was produced,

the prefix, "Stone," being given in honor of Mr. John Stone, Jr., through whose intelligent cultivation the result was obtained.

*Marblehead Mammoth Drumhead.*—While endeavoring to increase the size of the "Mason," some of our enterprising farmers resolved to continue enlarging it to the utmost limit possible for a high culture under a New England climate. The final result was the Marblehead Mammoth Drumhead, without doubt the largest cabbage in the world.

*Direction and Hints for Cultivation.*—Plant, if possible, on new land, and three or four years should intervene between crops on same location. Manure liberally, particularly for the Mammoth, about two-thirds broadcast and one-third in the hill. A compost of night-soil, muck and barn-manure, thoroughly mixed, is excellent. Too highly concentrated manure applied directly to the hill tends to produce stump-foot; for this reason avoid hog manure, though stable manure on which hogs have run is excellent. A mixture of ashes and guano is excellent for the hills. Plant the seed in the hill in which the cabbage is to grow. As soon as the plant is up, scatter plaster, or lime well air-slaked, to keep off black fly. Hoe three times. When the fourth leaf is developed, thin to two plants to hill; when about three inches high, to one in hill, leaving occasionally two, to fill future blanks. If, after heavy rains, heads when small show symptoms of cracking, start the roots slightly, and they will soon re-root and grow to double size. Plant Mason  $2 \times 2\frac{1}{2}$  in row; Stone-Mason  $3 \times 2\frac{1}{2}$  or 3; Mammoth  $4 \times 4$ . For winter use, plant Mason, in latitude of Massachusetts, from the 12th to 20th of June; Stone-Mason, from 7th to 12th of June."

For the New England Farmer.

12 ROWED AND 8 ROWED CORN.

MR. EDITOR:—In the *N. E. Farmer* of January 19th, I find an article by “Massapoag” giving the results of some experiments, from which he infers that 12 rowed corn will yield 30 bushels to the acre more than 8 rowed.

If I understand his figures, his estimate would make the yield of the larger variety 175 bushels to the acre, at 50 pounds to the bushel, as he estimates it, or 146 at 60 pounds to the bushel, (the weight of such corn as we grow here,) a crop which I should rather see than hear of. Again, he allows no more room for a large 12 rowed variety, than for a small 8 rowed, when, in fact, it requires wider planting nearly in proportion to its size.

The proper method of comparing the two, would be by shelling a bushel of ears of each kind and weighing the product, or if they were grown separately, by measuring and weighing the product of an equal area of each.

So far as my experience goes, the 12 rowed varieties will not, here in Massachusetts, mature as many bushels of ears as some of the 8 rowed, and I have never found them to yield any larger proportion of shelled corn than some of the latter, the King Philip, for instance, while the larger cobs, which they almost always have, require considerably longer time to dry, and of course, there is more danger from early frosts before harvesting, and warm damp weather after it is got into the crib, and this I think without any compensating advantage, unless it be that the 12 rowed is worse to shell.

There is one point, however, on which I am ready to agree with “Massapoag,” that the largest variety of corn that will mature fully, is the most profitable to raise, not only because I think it will give a better yield, (a point, however, which some of our farmers do not admit,) but also from the smaller amount of labor required in its cultivation. What variety to plant must depend upon the location, nature of the soil, and the amount and quality of the manure.

The King Philip is as late a variety as I can safely plant on my best corn land, while a neighbor succeeds equally well with a variety two weeks later, because his land has a warm southern exposure, while mine slopes a little in the opposite direction, and lies a little lower, thereby being a little more exposed to frost; again, in other parts of this town it is necessary to plant a variety two weeks earlier than the King Philip, a difference which is mostly due to the cold nature of the soil.

Ashfield, Feb., 1861. WM. F. BASSETT.

THE force with which a solid body, falling upon a solid surface, will strike, is equal to the weight of the body multiplied by the square root of sixty-four and one-third times the height in feet of the fall. A body falling through one foot, strikes with eight times its own weight.

For the New England Farmer.

TABLE OF COMPARATIVE BULK.

It would often be useful to the person who applies manure or other top-dressing to land, to know the comparative bulk of what he applies, to the soil on which he puts it.

If one foot in depth of soil on one acre of land, should be measured in a bushel measure, we should find thirty-five thousand and three bushels. If weighed, we should find twenty-seven hundred and fifty-seven tons. If dried in an oven, to expel all the moisture, it would then weigh two thousand and sixty tons. If taken off in an ox cart, it would be all carried away in one thousand and twenty-one loads. If measured in cords, there would be three hundred and forty.

These numbers are set down in the first line of the table under the appropriate words.

To ascertain the average weight of soil, I examined the weights of different kinds of soil as given by Weisbach, Mosely, Law, Hitchcock and Dana, and adopted the weights given by Dana as the most accurate average for our ordinary farm soils. He gives the weight of a cubic foot, thoroughly dried, as 94.58 pounds, which, in its ordinary wet state would weigh 126.6 pounds which shows that soil will absorb and retain more than half its bulk of water. This agrees very nearly with my own experiments. About one-fourth of the bulk still remains unfilled with soil or water, and is occupied by air.

The “load” as commonly spoken of by farmers, contains one-third of a cord, being 42½ cubic feet, or about 34½ bushels. The horse cart employed in road building, contains about 18 cubic feet, or less than half of what is known among farmers as a “load.”

TABLE.

|                               | Bushels. | Tons in Ordinary State. | Tons in Dry State. | Loads. | Cords. |                |
|-------------------------------|----------|-------------------------|--------------------|--------|--------|----------------|
| In 1 acre 1 foot deep,        | 35003.   | 2757                    | 2060               | 1021   | 340    | of the bulk in |
| 1 Bushel, Ton, Load, or Cord, | = 35003  | 2757                    | 2060               | 1021   | 340    | one acre.      |
| 2                             | = 17502  | 1379                    | 1030               | 510    | 170    | “              |
| 3                             | = 11668  | 919                     | 687                | 340    | 113    | “              |
| 4                             | = 8751   | 689                     | 515                | 255    | 85     | “              |
| 5                             | = 7001   | 551                     | 412                | 204    | 68     | “              |
| 6                             | = 5834   | 460                     | 343                | 170    | 57     | “              |
| 7                             | = 5000   | 394                     | 294                | 146    | 49     | “              |
| 8                             | = 4375   | 345                     | 257                | 128    | 43     | “              |
| 9                             | = 3859   | 306                     | 229                | 113    | 38     | “              |

Suppose you have a piece of meadow land, measuring for instance, five acres, and wish to know how many loads of sand will be required to cover the entire surface two inches thick. As one acre 12 inches deep contains 1021 loads, 5 acres will contain 5 times as much, or 5105

and as 12 inches is 6 times as much as 2 inches, divide by 6, 851 loads,

and we have 851 loads, as the quantity required.

Suppose you apply 72 bushels of ashes to an acre, how does it compare in bulk to the soil? 1 bushel equals 35003, then 72 bushels will equal 2520216, which can be reduced to a smaller fraction of nearly the same value by dividing the numer

ator and denominator by 72, the result is about  $\frac{1}{34}$ . Or, again, as 72 is 12 times 6, the fraction opposite 6 should be multiplied by 12; we shall then see that 72 bushels will equal  $\frac{12}{35} = \frac{12}{34}$ , or about  $\frac{1}{34}$  of the bulk of the soil.

If you apply 30 loads of manure, the bulk will be 10 times as much as for 3 loads, and will be represented by  $\frac{10}{34} = \frac{1}{34}$ .

If you apply 20 cords of manure, the bulk will equal the fraction opposite 2, multiplied by 10, or  $\frac{10}{17} = \frac{1}{17}$ , or the fraction opposite 4, multiplied by 5, or  $\frac{5}{8} = \frac{1}{17}$ , or the fraction opposite 5, multiplied by 4, or  $\frac{4}{5} = \frac{1}{17}$ , &c.

A similar table is given below, in which the quantities are represented by decimal, instead of vulgar fractions, by which those accustomed to the use of decimals can make up readily and accurately, the comparative bulk of any number of bushels, tons, loads or cords.

DECIMAL TABLE.

| Bushels.      | Tons in the Ord'y State. | Tons in the Dry State. | Loads.   | Cords.   |
|---------------|--------------------------|------------------------|----------|----------|
| Acre. = 35003 | 2757                     | 2060                   | 1021     | 340      |
| 1. = .0000286 | .0003627                 | .0004854               | .0009794 | .0029383 |
| 2. = .0000571 | .0007253                 | .0009709               | .0019589 | .0058766 |
| 3. = .0000857 | .0010880                 | .0014563               | .0029383 | .0088146 |
| 4. = .0001143 | .0014507                 | .0019418               | .0039177 | .0117531 |
| 5. = .0001428 | .0018133                 | .0024272               | .0048972 | .0146914 |
| 6. = .0001714 | .0021760                 | .0029127               | .0058766 | .0176298 |
| 7. = .0002000 | .0025387                 | .0033981               | .0068563 | .0205672 |
| 8. = .0002286 | .0029013                 | .0038835               | .0078355 | .0235056 |
| 9. = .0002571 | .0032640                 | .0043690               | .0088144 | .0264445 |

The weight of an acre of soil one foot deep, in its ordinary state, is 5,514,696 pounds; in a thoroughly dried state, 4,119,905 pounds.

J. HERBERT SHEDD,

AGRICULTURAL ENGINEER.

Boston, Feb. 12, 1861.

**AGRICULTURAL SURVEY OF SOMERSET COUNTY, MAINE.**

Although the "Massachusetts Society for the Promotion of Agriculture" is less demonstrative than some younger institutions, yet its record shows that it has initiated some of the most important agricultural movements which have been made in New England within the last half century, and that its influence is still felt for good. The "Agricultural Survey of Middlesex County," by Dr. JOSEPH REYNOLDS, of Concord, published in the Transactions of the Society last year, is destined to prove like good seed on good ground, and bear an abundant crop of information respecting the agricultural condition and capacities of other sections of our own State, and of other States, especially in New England. We are waiting with interest to see the forthcoming number of the Transactions of the Society, as we anticipate something further in the same direction.

We have before us "An Agricultural Survey of Somerset County, Maine," by SAMUEL L. BOARDMAN, of South Norridgewoek. Mr. Boardman seems to have followed somewhat the plan of the Middlesex Survey, and has quoted quite freely from that able paper, as well as from Dr.

Jackson's Geological Reports on Maine. The Survey is well written, and contains many suggestions that cannot fail to be useful to the farmers of Somerset, as well as to farmers similarly situated in other parts of Maine. We are especially gratified with the judicious remarks upon *Sheep Culture*, and trust they will be heeded.

Somerset county is nearly one-third as large as the State of Massachusetts. It lies on the Kennebec, and its affluents, Moose and Dead rivers. Moosehead Lake divides it from Piscataquis county. The northern part of the county is mostly unsettled, and is the centre of the lumbering operations on the Kennebec. The southern part is well settled, and we hope this timely paper of Mr. Boardman, will awaken the farmers to a more careful attention to the condition of the soil and the demands of progressive agriculture, and that some equally competent man in each county will imitate his example, and thus give us an agricultural picture of the whole State.

*For the New England Farmer.*

**HAY AND POTATOES---A ONE-HORSE POWER.**

MR. EDITOR:—A number of years ago I read in the *N. E. Farmer* that in good hay, 1000 parts, there are from 90 to 100 parts nutriment, and in 1000 parts potatoes, from 200 to 260 parts nutriment. About two years since I read in the same paper that it requires 201 pounds of potatoes to be equal to 100 pounds of good hay. I also read in the *Farmer* that it was stated at an agricultural meeting in the State House in Boston, in January last, that three pounds of potatoes are equal to one of hay. Now these statements differ very much, and which of them shall we believe? It will not do to dispute chemistry, if experience proves to the contrary. I am inclined to think the first statement nearest right. Three years ago last August I had a mare that had done all the light work on the farm and brought up a colt, and at that time was quite thin in flesh, as she had lived on grass alone. I took the colt from her some time the last of August, and from that time until the last of winter she worked almost every day. She was fed with one peck of boiled potatoes mixed with a little cut hay per day, and came out fat. After a few days she ate but little hay. I concluded, then, that I should experiment a little with boiled potatoes, if I had a chance. Since then I have worked this mare on hay alone, and on weighing it, find that she consumes 25 pounds of hay per day and she loses flesh at that. Last August I commenced feeding her on hay and one peck of boiled potatoes per day, and worked her almost every day until winter. I found on weighing the hay, that she ate 10 pounds per day, or a fraction less. At that time she was in much better flesh than in August, and since then she has had only six quarts of potatoes per day, and she is round enough to ride on the back a short distance without a saddle, with pleasure. Now, if there is not more nutriment in a pound of hay than in a pound of potatoes, why



does my mare gain on 10 pounds of good hay and 15 pounds of potatoes, and lose on 25 pounds of hay per day, performing the same labor? These are facts.

I see an inquiry in the *N. E. Farmer* in regard to a one-horse power. About seven years ago I bought a one-horse thrashing machine, and I find that it is a good deal cheaper than a two-horse power, for thrashing. I place the machine in the centre of the barn, before I get in any grain, then I can drive a load at each end of the barn, at night, for instance, and the next morning if it rains I put the horse into the machine, and thrash it off the cart, and thus save the labor of pitching off and on the scaffold once. Perhaps by noon it is fair again, our two loads are thrashed when we could attend to it as well as not, and we are ready to go to the field again. We are not under the necessity of leaving other work to attend to thrashers whenever they happen to come along. My horse does not weigh over nine hundred, and she will thrash 20 bushels of oats in an hour, and other grain in proportion. This machine, with a pair of good horses, one working at a time, has thrashed in my barn 536 bushels of oats in a day and a half.

We use the horse power to saw our fire-wood, and save a great deal of hard work. We manage in this way: We find it very hard to split tough logs that are cut four feet long; we cut it about ten feet long—what we call sled length—and draw it to the house in that condition, and saw the logs before they are split. Perhaps some one may wish to know how I attached the saw to the horse power. Well, I bolted on a piece of plank across two of the arms of the drive wheel, just as far from the centre of the wheel as I wanted the crank in length; then I put a pin through the end of the sweep and the centre of the plank. This constituted a crank. This sweep moves back nearly to the hind end of the horse power, and here we must have a joint in the sweep in order to run the saw and not rock it up and down. The other half of the sweep is attached to the first by bolting on a short piece of board on each side of one of these half sweeps, and the other half sweep slid in between these two boards, with a pin through in order to make a joint. This joint is supported by a stud with a pin through the lower end and in the sill of the horse power, and the upper end comes up between the strips of board with a pin through that, the ends of the sweeps being far enough apart to admit it and have it play back and forth. The saw is called a cutting off saw, such as is used in shingle mills for cutting off logs. It cost four dollars, and I put it in a frame, just like a hand wood-saw. One end of this frame is attached to the end of the sweep by bolting on two short pieces of board one foot wide. Now there wants two little studs set up, one each side of the sweep near the saw, the cheapest way you can, in order to guide the sweep, about three of these, and the sweep should be about eight inches wide. Now fix the cheapest way you can to hold the log, and your saw is all right. A man that can handle tools will make the necessary fixings in three days, and the whole apparatus costs about seven dollars—much less than a circular saw. We set the horse power in the wood-house, and let the end of the sweep run just out of the door if we choose, so that the

horse is under cover and the saw out, then draw the logs up to the saw as they are wanted, saw them short enough for the stove, and the work of splitting is a mere nothing compared to splitting four foot wood.

We finished sawing our next year's stock of 15 cords in January, when the wood was frozen as hard as could be, and we averaged a cord of these hard wood logs sawed from fourteen to sixteen inches long, in less than three hours and a half. We saw a hard wood log one foot through in a minute, and the horse does not draw a single pound. This machine has more than paid for itself already, and it is nearly as good as when first bought. I think it one of the best investments I ever made, and that any good farmer, after he has used one a year, would not think he could be without it.

Will it injure manure to get so hot that the inside of the heap will become mouldy, and if so, what is to be done with it, now the snow is so deep I cannot get it out? B. W. GAY.

*New London, N. H., Feb., 1861.*

REMARKS.—Manure is greatly injured by becoming as hot as you state. Throw it over at once, and mingle with it meadow hay or straw cut fine, good muck, loam, plaster, charcoal dust, or, if you cannot get these, sprinkle it well with copperas water, of any strength you please.

#### OUR NEW CATTLE MARKET REPORT.

The reader who is at all interested in stock, cannot have failed to notice the report we have now given for several successive weeks in relation to the *Cattle Market at Cambridge and Brighton*. It has been published long enough to command the attention of producers and stock-dealers, and to bring to us from them the warmest commendations of our plan. We have been seeking to gain this point for several years, but until recently have been unable to find the person having the proper practical knowledge required to make a truthful, and at the same time, a clear report. The ability to do this requires both a particular taste or genius for the work, coupled with an intimate acquaintance with the business in all its departments. Several persons have, at different times, engaged in this matter for us, but have failed to produce such reports as would commend themselves to those immediately engaged in rearing stock, or in purchasing and preparing it for the market.

These persons now see, and state to us, that a head is engaged in it which comprehends this important industrial interest in all its particulars, and that nothing short of an intimate knowledge of its details could give him the power of presenting a report which so admirably meets the wants of all parties.

The report will be continued, and its value enhanced by such additions or improvements as

may be suggested by longer experience, or by the kindness of any of our readers who desire it made as perfect as possible.

In presenting it, the publishers incur a new and considerable expense, but the prosperity of the paper fully justifies them in this, or any other reasonable cost, if in so doing a majority of its readers will be benefited. The work is a mutual one. We certainly cannot long find a demand for the *Farmer*, unless the wants of the reader are generally met. Let us, therefore, sustain a mutual confidence, by suggesting to each other what may seem to us to promote the interests and best meet the wants of all.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

There was a very good attendance at the ninth meeting of the Legislative Agricultural Society, held in the Representatives' Hall on Monday evening. The meeting was called to order by Col. Stone, who introduced Judge FRENCH, of Cambridge, as the Chairman of the evening.

On taking the chair, Judge French announced as the subject for discussion, "*Under-Draining.*" He said he had not proposed to deliver a lecture on the subject, but to make a few introductory general remarks. It was not the object of the meeting to go into a systematic discussion of the question of draining, as he understood, as this would occupy not only days but weeks, as the best tools, the nature of the land, and other important matters contingent on a thorough understanding of the subject, would necessarily have to be each and all considered.

He would speak of draining wet lands, which embraced a great proportion of our uplands, as well as lowlands. He said he was not one who believed that all lands would be improved by draining, but he thought that none would be injured, and the question to be considered by every farmer, in the first place, was, Will it pay? and is it a better investment than others I can make? In four feet of soil, the speaker said, was retained two feet of water, and anything more than this would have to be carried off by drainage.

The speaker then alluded to the swamps and meadows in Massachusetts, and took occasion to say that he believed the Yankee meaning of the word meadow was correct, and that the English meaning of mowing lands was incorrect. He did not know the quantity we had here, as he had never seen it stated, but in Indiana, he learned from Gov. Wright, there were 3,000,000 acres, and in the United States, prior to 1857, 60,000,000 had been taken by the several States under the law of Congress. He had seen in a Massachu-

sets Legislative document of 1860 that there were 156,000 or more acres of meadow land, and 40,000 acres of salt marsh, on all of which the average crop was not more than three-fourths of a ton to the acre, and in this of course were not included the swamps covered with wood, which would be reckoned as woodland, nor those covered with water. All reports, said he, agree in stating that these lands, when properly treated, are the best and most productive in the State, as the collecting of leaves on them, the washings from the higher lands, and other causes, make them particularly fertile.

He had supposed that every one knew the value of such lands as these, until that day he had heard a man question the utility of being at any expense to reclaim them, but he now thought the man was ignorant, and he wanted what a great many of our farmers lacked—knowledge. The only question, said Mr. French, is whether it will pay to reclaim the land, and in by far the greater portion of lands he felt sure it would.

We want, said the speaker, to employ more capital and more knowledge, and the nations which excel us in agriculture do this, and it is the secret of their success. He spoke to farmers without flattering them, and he thought it was due to every man to speak in this way. It is not true, said he, that the farmers of our country have no capital to invest,—the banks, railroad and other corporations show that they have; but as soon as a farmer gets a little money, he is too much in the habit of going to invest it in this manner, than to put it on his farm, where he would always have it.

Judge French said that he learned from a report of Mr. Goodale, Secretary to the Maine Board of Agriculture, (and this he instanced to show that there the farmers are not poor,) that the fences in Maine have cost the farmers \$25,000,000, while the fences to the highways alone have cost the State \$3,000,000.

There is not knowledge enough in Massachusetts, said he, to make farming profitable, but by this he did not wish it to be understood that we had not an excellent school system and means of acquiring learning, but that our farmers were lacking in the practical knowledge of their business, so as to enable them to make the most from their lands. Twenty-eight and a half bushels of wheat is the average product in England, while here the highest average of any State, except California, is only 16, and that in Massachusetts. The reason of this is that England has more capital and more labor, and knows how to use it. He spoke of the system of farming in England, saying that the farmer there directed only, and was thoroughly acquainted with his business, while here the farmer furnished head and hands both. He supposed the Southern planters did their

work better than we do, as it was done on the English plan.

We have capital enough, said the speaker, but the great object was to show that it can be made to pay to invest it in agriculture, and to show how this is done in Europe, he spoke of the pumping out of Haarlem lake in 1852, and in 1855 there were families living on the bottom of the lake, by which 40,000 acres of land, worth more than double the land around it, and capable of supporting 70,000 people, was obtained at a cost of only \$80 per acre. He also gave a very interesting account of the draining of the Lincolnshire fens in England, and closed by inviting the members to take part in the discussion.

Dr. GEO. B. LORING, of Salem, being called on, said that the question of drainage was not generally understood by the farmers of this country. Two or three weeks ago he had been invited to address the Milford Farmers' Club, and had taken for his subject "How to manage a Farm." He there told them that no farmer should undertake to cultivate a piece of land without first getting the water out of it. In swamp lands where rivers flowed near them, and in bogs and lands where there were large springs, he advised them to use tile drains, as they were better than stone.—After the address, he was told that another member of the Board of Agriculture had been there a short time before, and he had told them that if they wanted to ruin their land, and themselves with it, they would use tiles in their soil. Thus, said the speaker, we must now consider which is the most economical method of draining our land. He said that, 30 or 40 years ago, a man in his section, who had all the advantages that a knowledge of the English and Scotch system then gave him, drained 20 or 30 acres of wet meadow with stone drain, and he also had the advantage of surface drainage besides, yet with all this, after he had drained the land awhile, the drain choked up, and water grass covered every foot of the land. I advised him, said Dr. Loring, to take up the stone drain and put in tiles, because I knew these would never be liable to choke up, and the result is, the land is now in fine order. Peat bog, said he, must of course be drained by open drains, but moist, clayey land will only do with tile drain. If it is drained by stone drain, the soil and clay will work through, and finally, without there is a great fall, the drain will fill up. Tiles, said the speaker, are in the end the cheapest. He advised every farmer to commence with stone draining if he could not afford tiles, and when he got a return for his crops, to invest it in tiles instead of stocks. It was impossible, he said, to fill up a tile drain, as the hydraulic pressure would draw the water through the pores of the tile, and thus no sand or clay could get inside the pipe.

Judge FRENCH said that the English Parliament had loaned \$40,000,000 to land drainage companies, and Mr. Denton, an eminent agricultural engineer in England, said that, in 1855, 1,250,000 acres had been drained. There is no such thing as stone drains there, all being done with tiles. The land, said the speaker, is owned by the members of Parliament, and they consider this the best investment they can make.

Mr. NOURSE, of Orrington, Maine, was next called up. He said there was no question to any one who had had experience of the advantage of tile drains. He had two miles of stone drain, and five of tile, and when tiles can be had for \$15 per 1000, he said he would rather have them than the stone if it was given to him. It is safe, said he, with a very great fall, to use stone drains, as then there is no fear of their filling up, but tiles were good anywhere. He said some farmers stated that they could not afford to get tiles, but his experience told him that they could not afford to do without them. If a man had a piece of land that would be fertile if drained, and said he could not afford to drain it, he would advise him immediately to sell half of it, and drain the other half with the proceeds. In the matter of manure, the speaker said that if land on which it was put was properly drained, all the rains that fell would carry the manure into the ground, while if the land was not drained, it would be washed off, and the land would lose more than half the good of it.

Mr. FISK, of Shelburne, said that his experience was altogether in favor of stone draining, and he thought that in the consideration of this subject, the lay of the land was of the utmost importance. He should rather refuse tiles if offered him than stone for drains. In the western part of the State there were lands that were hilly, and they had come to the conclusion that water would run down hill, and so were in favor of stone drains, from the fact that they had the stone on their lands, and did not know what to do with them. England, said he, has no stone to speak of, and thus they use tiles which are cheaper, while we use stones to get them out of the way. Thirty years ago he stated that he laid a stone drain, and to-day it works to perfection, and even better than tile drains belonging to his neighbors near it. In his part of the State it was the practice to use pebbles for their drains. They were under the necessity of draining more every year, and he was confident it would pay well, and the lands improved thereby were the best we have in the State.

The Chairman said his preference for tiles was because of the little trouble necessary to excavate to lay them, but if they could not be got he recommended the use of other materials which were most eligible. He spoke of the trouble from

mice and moles to stone drains. He said he would not drain a piece of land not having more than 3 inches fall in 100 feet with stone, unless he had the dimension stone, and laid it at least 4 feet deep; but he would rather pay \$12 to \$14 per 1000 for tiles, and he could show by figures, that excavating for stone draining would cost as much as \$10 per 1000 for tiles. He spoke of Mr. Wm. Connors, of Exeter, as being the first to drain with tiles in New Hampshire, the first tiles costing him \$25 per 1000, on his farm. He uses them now, and considers even his pasture land pays for draining; indeed so general had the use of tiles become in that section, that a manufactory had been established in Exeter. The speaker said he had a piece of land that he drained with tile, and although the land was worthless before, from wet springs, he now raised the largest crops he had ever seen from it, and these were six weeks earlier than on undrained land. He had found that on thorough drained land, after the frost is out of the ground, you can always go to work and plow.

RICHARD S. FAY, of Lynn, said he thought that even the system of drainage in Europe was in danger of being carried too far, and that parties were losing money by draining lands which never needed it, as it had become to be thought a panacea for everything. One-half of his farm was so dry he could not get water enough on it, and the other half was so wet he could not get the water off of it. He spoke of the advantage of air in the ground for the growth of plants and herbs, saying that too much moisture tended to check the growth and destroy vegetation.

MR. HALL, of Medford, had always been a farmer, and thought under-draining was at the bottom of all good farming. He had drained twenty acres of low, wet clay land within six or seven years, he finding the tiles and his tenant putting them in, and the effect on two and a half acres of this was that he considered it paid the expense the first year. He had taken up stone drains on land where a canoe would float, and put in tile drain, and now he had a very good growth of dwarf pears on the land, while the water he got from the land he pumped up by a hydraulic ram for use in his house, barn and out-buildings, and this, he thought, amply compensated for the cost of draining.

The Chairman explained the difficulty the people of Massachusetts and New Hampshire labored under, in comparison with England, in the laws relating to flowage.

MR. SHEDD, of Boston, being called on, said that as an agricultural engineer he had drained a lot of land in Milton where there were only two inches of fall to the quarter mile and the drain worked well. If there is a fall of three inches to

the hundred feet in land, a tile drain of two inches, with drains forty feet apart, four feet deep, would take off all the water, and he would guarantee it would work satisfactorily. All soils resting on a tenacious subsoil could be advantageously drained. He spoke of several instances of draining which had been particularly successful, and said that one great advantage of draining was the forwarding of the ground for agricultural purposes.

The subject for discussion at the next meeting having been announced as "*Fruit and Fruit Culture*," when Hon. MARSHALL P. WILDER is expected to preside, the meeting adjourned.

#### EXTRACTS AND REPLIES.

##### A MOWING MACHINE.

I think of purchasing a mowing machine, and if it be not in violation of your rules, please give me a word of advice as to the kind. What do you think of Ketchum's improved, made at Middletown, Ct., and also of Wood's? My meadows are not perfectly smooth.

Which is the best for all kinds of meadow—the wheel or the hand horse-rakes?

Winchester Centre, 1861.

H. FORD.

REMARKS.—When mowing time comes, go where mowing machines, of various kinds, are at work and see and test them for yourself. Ten dollars expended in this way will be an economical outlay.

If your lands are quite rough, a hand horse-rake will last longest on them, but it will *kill you* a great deal sooner, than a wheel horse rake will. So, as you value your own comfort and longevity, choose between them!

##### A NEW SEEDLING APPLE.

I herewith enclose a sample of apples raised by myself the past season, which, being seedlings, I thought I would send a few to you, and would like your opinion of them. I planted the seed in 1850, on light gravelly soil; one tree, looking very thrifty and growing faster than the rest, I thought I would not graft it, but let it grow and bear naturally; it continued to grow very thrifty, without any extra manuring, and bore two apples in 1858. In 1859 it bore about a peck, and the past season one and a half bushels; the tree now stands over fifteen feet high and has gone far ahead of all my others on the same soil. The apples keep pretty well till February. One advantage in them is being a great bearer and of good size, the sample I send you being an average size. I think by cultivation they would be worthy of notice.

SEEDLING.

Bradford, N. H., 1861.

REMARKS.—Our opinion with regard to fruit must be well known to our old readers. We are decidedly of the opinion that none *but the best* fruits should be cultivated. It costs no more to raise and continue a good tree than to sustain a

poor one. If, on account of climate, or for any good reason, the Baldwin and other fine fruits will not flourish in a particular locality, then introduce something else. In the region of Boston, the fruit sent by our correspondent is not equal, in appearance or flavor, to many varieties that are quite common in the eastern part of Massachusetts; so that, if these fruits will flourish in the section from whence our correspondent writes, we think he had better use them than his seedling. He may succeed, by-and-bye, in getting something preferable to any apple now known to us. The finest apple we have, among forty varieties, is a New Hampshire seedling.

#### HORSE WITH A BROKEN LEG.

Having been a constant reader of your valuable paper for a number of years, and observing many things relative to sick horses and cattle, I wish to say a few words through the *Farmer* about broken-legged horses, which I had generally supposed were worth as much as one with a broken neck and no more; but personal experience has shown the reverse, viz:

In August, 1857, as my neighbor, H. Burton, was training a young horse of three or four years, he threw himself, and the second time he got up it was with one hind leg broken about two inches above the ankle. Mr. B. came over to my house and wished me to go and see it. I did so, and on examination I found it so badly broken, that when we moved the foot the bones would rattle like a parcel of broken crockery. Mr. B. bound it up rather ordinarily, turned him into the meadow and there let him run without bathing it at all. It swelled, corrupted and discharged, and pieces of bone came out from time to time, and in about one year he became able to work. The past winter he has been able to go into the woods harnessed with another to the short sled, and draw the biggest logs without fear or favor.

JOHN PETTENGILL.

Andover, March 2, 1861.

#### REMEDY FOR SCRATCHES — TRANSPLANTING A GRAPE VINE.

I see in your paper the statement that a beech tree is a non-conductor, but I can show you a beech that was struck by lightning and stove into a thousand pieces, as the saying is. The tree was about eighteen inches through the butt.

I also read an article on "Scratches, and their cure." My method of curing them is to rub on West India molasses a few times, and I have never known it to fail. It is a cheap, simple remedy, and that is what we want.

Will it do to take a grape vine out of a brook and set it in ground that is not half so wet? If so, when will be the time to do it?

Framingham, 1861.

J. C. STEWART.

REMARKS.—Yes. Transplant the vine as early as you can after the frost is out, and with as many roots as you can get. Do not mutilate the roots. Make the soil where you plant it mellow and deep—and sprinkle in some wood ashes with it.

#### EARLY AND DEEP SNOWS.

The snow here, Jan. 21, is in many places three feet in depth; and the roofs of weak buildings are being crushed beneath its weight. There fell

|                           |                  |
|---------------------------|------------------|
| October 15.....           | 2 inches.        |
| November.....             | 7 "              |
| December.....             | 34½ "            |
| January, to the 21st..... | 20¼ "            |
|                           | 5 feet 4 inches. |

Can any authentic record, or the "oldest inhabitant," tell when so much snow has fallen so early in the season? The heaviest fall was 18 inches on the 22d of December. The temperature of the winter has been rather mild, though on Sunday morning, 13th inst., the mercury fell to 32° below zero. RECORD.

Charlestown, N. H., Jan. 21, 1861.

#### ABOUT BUGS.

The word "bug," in its *proper* signification, is applied to an insect having a hard pointed sucker, without jaws; four wings, the upper pair of which are hard and horny for that half of their length nearest the body, thin and flexible through the other half, while the lower pair are folded between the upper pair and the body, like those of a beetle. The larvæ and pupæ of this order of insects are active, and bear a close resemblance to the *imago* or perfect insect.

This word, in England, is narrowed down to contain only one species of bug, i. e., the bed-bug, *Acanthia lectularia*, and in this country, with equal impropriety, extended to cover everything with six legs to sixteen; from a large and beautiful moth or butterfly, down to the wheat or Hessian fly.

F. G. SANBORN.

Andover, March, 1861.

#### REMEDY FOR CHOKED CATTLE.

Reading a "Remedy for Choked Cattle" on p. 552, vol. 12, of the *Farmer*, reminded me of a very simple and efficacious remedy which I have often seen tried, and have never known it to fail.

Take a few spoonfuls of cold hog's lard, and with a knife work in all the gunpowder that will well mix with it. Make the mixture into balls the size of a small hen's egg, and put one down the animal's throat. If the obstruction is not removed in two or three minutes, give another ball. One will generally be sufficient, if not the second seldom fails. Without any effort more than is performed in ejecting wind from the stomach, the potato, apple, or other obstruction, will be thrown out, and I have seen the animal take a potato thus ejected, and eat it as soon as it rolled upon the ground.

Perhaps the lard alone would answer equally as well. I hope the above will be tried when necessary, and the result reported. It is a safer remedy than removing the obstruction with a "probang."

L. VARNEY.

#### BREMEN GEESE.

I am desirous, Mr. Editor, to learn from any of your kind correspondents the habits of the Bremen goose as to mating, raising, &c. It has been said that in the spring they pair, and do not mingle as other domestic fowls. Is this so, and at what time? How early in the spring do they commence laying, and do they raise more than

one brood in a season? Indeed, any information as to the culture of the bird will greatly oblige  
A SUBSCRIBER.

#### DISEASES IN HORSES.

**CASE OF CRAMP, OR SPASM.**—I was requested, a short time ago, to visit a horse, said to be the subject of "stifle lameness." The patient, a grey gelding, aged eight years, was put up at the stable, on the evening preceding my visit, apparently in perfect health; early in the morning, ere I was called, the "feeder" observed that the horse was incapable of moving the near hind limb, and it appeared to be, as I was informed, "as stiff as a crowbar."

On making an examination of the body of the animal, he appeared to be in perfect health; yet he was unable to raise the limb in the slightest degree, from the stable floor. The case was accordingly diagnosed as cramp of the flexors.

*Treatment.*—The body and lower parts of the limbs were clothed with blankets and flannel bandages, and the affected limb was diligently rubbed for half an hour with a portion of the following liniment:—Oil of Cedar, 1 ounce; Sulphuric Ether, 2 ounces; Proof Spirit, 1 pint.

In the course of a few hours after the first application, the difficulty had entirely disappeared.

The owner informed me that the horse had, on the day prior to the attack, been exposed to a cold and continuous rain storm, and probably this operated as the exciting cause of the spasm.—*American Stock Journal.*

### LADIES' DEPARTMENT.

#### THE DAY AFTER MARRIAGE.

The departure of a son from beneath the paternal roof does not present any spectacle of desolation. Masculine life has, from infancy, an individuality and independence, an exotism, so to say, which is essentially wanting in female existence. When as on abandons his parents to create for himself a separate interest, this separation causes but little interruption in their mutual relations. A man marries, and still retains his friendships, his habits, and his filial affections. Nothing is changed in his life; it is only an additional tie. His departure is consequently a mere separation; while the departure of a young girl, to become a wife in a few hours, is a real desertion—a desertion with all its duties and feelings still fresh about it. In one word, the son is a sapling which has always grown apart from the trunk, while the daughter has, on the contrary, formed an essential portion of it, and to detach her from her place is to mutilate the tree itself. You have surrounded her youth with unspeakable tenderness—the exhaustless tenderness of your paternal and maternal hearts, and she, in return, has appeared to pour forth upon you both an equally inexhaustible gratitude; you loved her beyond all the world, and she seemed to cling to you with a proportionable affection. But one day, one ill-omened day, a man arrives invited and welcomed by yourselves, and this man of your own choice carries off to his domestic eyrie your gentle dove, far from the soft nest which your love had made for her, and to which hers

had clung. On the morrow you look around you, you wait, you seek for something which you cannot find. The cage is empty; the tuneful linnet has flown; silence has succeeded to its melodious warblings; it does not come as it did only on the previous morning, fluttering its perfumed wings about your pillow, and awakening you by its soft caresses. Nothing remains but a painful calm, a painful silence, a painful void.

#### THE WAY THE ENGLISH BRING UP CHILDREN.

The English bring up their children very differently from the manner in which we bring up ours. They have an abundance of out-door air every day, whenever it is possible. The nursery maids are expected to take all the children out airing every day, even to infants. This custom is becoming more prevalent in this country, and should be pursued wherever it is practicable. Infants should be early accustomed to the open air. We confine them too much, and heat them too much for a vigorous growth. One of the finest features of the London parks is said to be the crowds of nursery maids with their groups of healthy children. It is so with the promenades of our large cities to a great extent, but is less common in our country towns than what it should be. In consequence of their training, English girls acquire a habit of walking that accompanies them through life, and gives them a much healthier middle life than our women enjoy. They are not fatigued with a walk of five miles, and are not ashamed to wear, when walking, thick-soled shoes, fitted for the dampness they must encounter. Half of the consumptive feebleness of our girls results from the thin shoes they wear, and the cold feet they must necessarily have. English children, especially girls, are kept in the nursery, and excluded from fashionable society and all the frivolities of dress, at the age when our girls are in the very heat of flirtation, and are thinking of nothing but fashionable life.

#### COOKING HOMINY.

After the hominy is well washed, instead of putting it into an open pot or kettle to boil, as is the usual practice, get a tin kettle of the size wanted, put the same into a common iron pot that will hold about one-third more, which will leave a space around the tin to be filled with water. Then put the hominy into the tin kettle with a suitable quantity of water, fill the pot pretty full of water, put the lids on the kettle and the pot, and let the hominy boil upon the stove, stirring it two or three times while boiling. By so doing, it will be found that the quality of the article will be much improved; more than half the usual work of stirring and tending will be saved, together with a large part of the work in cleaning the kettle after using, which has heretofore been the chief objection to cooking this dish. The tin kettle should be kept from touching the bottom of the pot, by means of a large wire crooked for the purpose, and laid in the bottom so as not to have the tin and iron come in contact while boiling. By this means, none burns to the kettle, and the burnt flavor, which is so noticeable in that cooked in the old fashioned way, is entirely avoided.—*Boston Cultivator.*



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR.

FRED'K HOLDROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR MAY.

"Born in yon blaze of orient sky,  
Sweet May! Thy radiant form unfold;  
Unclose thy blue, voluptuous eye,  
And wave thy shadowy locks of gold.

"For thee the fragrant zephyrs blow,  
For thee descends the sunny shower;  
The rills in softer murmurs flow,  
And brighter blossoms gem the flowers."

DR. DARWIN.



MAY opens with a full chorus of singing birds, whose voices may now be heard in all directions, inviting us abroad to engage in the early duties of Spring, and to cheer us in our labors. All men are delighted with their songs, not excepting those who are indifferent to the strains of artificial music. The notes of birds have a charm for us exceeding everything else in nature. All men acknowledge the birds as their friends and benefactors; and yet they seem bent upon their destruction. It cannot be that our people fully realize the value of the services of the feathered tribes, or they would certainly use more endeavors to foster and protect them. We feel, therefore, that we cannot perform a more important service with our pen at the present time, than to present a few reasons, not only for protecting the birds, but for taking pains to cause the multiplication of some of the most valuable species.

The grand service performed by the feathered race is the devouring of insects, whereby they prevent their excessive increase, and the consequent destruction of our fields. Let us for one moment consider what an enormous quantity of insects would come into existence, were it not for the agency of another race in destroying them. It is highly probable, notwithstanding the infinite hosts that infest our gardens, our orchards, and our forests, that by far the greater part of all that burst into life are destroyed in the early stages of their existence. They are devoured in their grub state, and are thus prevented, not only from becoming themselves perfect insects, but also from continuing their species. Many are also destroyed in the eggs by the smaller kinds of birds. Were all those which are thus prematurely devoured, permitted to live out the full period of their existence, such would be the vastness of their numbers, that almost any species would swarm like the locusts of Africa. All kinds of vegetation would be destroyed by them; and the consequent loss of their means of subsistence would be the only cause of their destruction.

Without the agency of the small birds, therefore, it is safe to say, that man could not exist on this terrestrial globe. It would be impossible to devise any other means by which the over-multiplication of insects could be prevented. Our grain and grass crops would be destroyed in the herb by the grasshopper and locust tribes; in the grain by weevils and other seed eaters; our trees would be perforated and killed by increased multitudes of borers; their foliage consumed by caterpillars, and their fruit by the larva and butterflies. In their different stages of existence, each separate species would successively attack the roots, the herb, the wood, the bark, the leaf, the flower and the fruit, until nothing would be left of vegetation either to man or to nature. Lastly, the atmosphere would swarm with such darkening legions of small flies, gnats and musquitoes, that

it would be rendered uninhabitable, and man would perish from the face of the earth.

This is no exaggerated supposition, and it is only necessary to watch a few single birds of the insectivorous tribes, to be convinced that the service they perform in the economy of nature is infinite; and that it is impossible to overrate it. Last winter we took occasion frequently to watch the movements of the little chickadees, the most persevering and industrious of all our birds whose services are continued throughout the year. At a distance we could only observe their diligence in examining every part of the trunk and branches of the trees, every few seconds pausing to peck at something, and swallowing the living morsel which they had drawn out of its security. One of these birds came nearer to our window, where we saw him diligently searching under the roof of a fence, and in less than half a minute he destroyed three chrysalids, eating out the interior of each as readily as a weasel would suck a bird's egg. We have seen the same birds in June, destroying quantities of the cocoons of the common caterpillar. If one of these birds destroys three chrysalids in every half minute, how many chrysalids would a million of the same birds destroy, working ten hours in the day, in the course of three months? If this be not a fair way of putting the question—substitute insects or embryos for chrysalids, and then the answer to the question would afford us an idea of the immense service performed by this single species.

When we consider that almost every other species is employed during the whole or a part of the year in the same work, how is it possible to make an exaggerated estimate of the number of insects which are consumed by them? Some idea may be formed of this amount, by the quantities which are almost always found in the crops of birds, when they are dissected. In a night-hawk, which was shot by Mr. Gosse, as afterwards examined, the stomach was stuffed with an amazing quantity of insects, consisting chiefly of small beetles. Of the latter alone there were about two hundred. According to an estimate made by Buffon, a pair of sparrows will destroy about 4000 caterpillars weekly while feeding their young. Alexander Wilson ascertained by frequent dissections of the common red-winged black-bird, that each bird, on an average, devoured about fifty grub-worms in a day. A single pair, in four months, the usual time they live upon such food, would consume upwards of 12,000, according to this calculation, which is moderate. It is believed that not less than a million pair of these birds are distributed over the United States in summer, whose food being nearly the same, would swell the amount of vermin destroyed by them to twelve thousand millions. In addition

to these may be reckoned another vast quantity, with which they supply their young, who consume more than the old ones.

Audubon bears continual testimony to the inestimable services of birds, in preventing the injurious increase of insects. In his description of the cat-bird, he remarks: "The vulgar name, which this species bears, has probably rendered it more conspicuous than it would otherwise be, and has served to bring it into some degree of contempt with persons not the best judges of the benefit it confers on the husbandman in early spring, when, with industrious care, it cleanses his fruit trees of thousands of larvæ and insects, which in a single day would destroy, while yet in the bud, far more of his fruit than a cat-bird would eat in a whole season. But, alas! selfishness, the usual attendant of ignorance, not only heaps maledictions on the harmless bird, but dooms it to destruction. The boys pelt it with stones, and destroy its nest whenever an opportunity presents; the farmer shoots it to save a pear, and the gardener to save a raspberry; some hate it without knowing why; in a word, except the poor, nearly extirpated crow, I know no bird so generally despised and tormented as this charming songster."

The purple Grackle, or crow blackbird, is another species against which our farmers entertain an inveterate prejudice, because he is a pil-lager of corn. Audubon pleads the cause of this bird in the following language: "No sooner has the cotton or corn-planter begun to turn his land into brown furrows, than crow blackbirds are seen sailing down from the skirts of the woods, alighting in the fields, and following his track, along the ridges of newly-turned earth, picking up the grubs and worms that are turned up with the furrows. He follows the husbandman, as he turns one furrow after another, and destroys a far worse enemy than himself, to the corn; for every grub which he devours would cut the tender blade, and thus destroy the plant when it would be too late to renew it by fresh seed. Every reflecting farmer knows this well, and refrains from disturbing the Grackle at this season. Were he as merciful at other times, it would prove his grateful recollection of the services thus rendered him." In harvest time, according to Audubon, the Grackles consume a great deal of corn, because the grubs and worms have retired to their winter quarters, and the beech-nuts have not yet fallen from the trees. How ungrateful it seems in man, after receiving incalculable service from certain birds in spring and summer, to shoot them in the autumn for taking a little corn, which is necessary for their subsistence during a few weeks of that season. What should we think of the humanity of a man, who, after receiving



the services of a set of hired men for a few months, should, just before their pay-day arrived, enter a suit of damages against them, and send them all to prison, to escape paying them their wages? The corn and fruits which are devoured by the birds are the wages of their labor, and probably the amount is far less than we should be willing to pay for the services they perform, if the service was conditional. Audubon remarks, in another part of his work, that whole forests are sometimes destroyed by grubs and caterpillars which had multiplied on account of the sudden scarcity of certain species of birds that feed upon them.

Birds are often killed, from the ignorant belief that they are guilty of mischief which could never truly be laid to them. In western Virginia, some years since, when the forests were much injured by a species of borers, the farmers employed themselves in exterminating the woodpeckers, supposing these harmless and useful birds were the cause of the mischief, by perforating the trees with their hard beak. An intelligent traveller convinced them that the woodpeckers devoured these borers when they were hammering upon the trees, and that their security from these pests must depend on the multiplication of this race of birds. A year or two since, a correspondent of one of our agricultural papers stated that a neighbor of his expressed a wish to destroy the yellow birds, which he in common with other farmers, supposed were in the habit of destroying wheat. By the correspondent's suggestion the farmer opened one of these birds which he had killed, and on examining its crop, he found that the bird, instead of eating the wheat, consumed the weevil, the great destroyer of wheat! He found as many as two hundred weevils in the bird's crop, and but *four* grains of wheat, each containing a weevil! The name of this species of bird was not given; but it was described as a fine singer, and bearing resemblance to a canary. How often does ignorance thus defeat its own ends, by mistaking the cause of certain evils which it seeks to prevent!

We might pursue this subject, until we had written a volume; but our present object is merely to make a few suggestions, that may lead our people to pause and reflect upon the consequences of their actions, when they are wantonly destroying the birds, either for game, or to punish them for stealing fruit. The inhabitants of old countries understand the value of birds, and appreciate their services better than we do, because the experience of former generations has proved their utility. In Japan it is said that birds are regarded as sacred, and no person is allowed to kill them under any pretence; and when the late treaty between the United States and that coun-

try was concluded, a condition was inserted to protect their birds from the guns of our sportsmen. We have not the least doubt that the increased ravages of borers, curculios and other pests of our orchards, during the last ten years, may be attributed to the greater disproportion between the numbers of the birds and the numbers of our orchards, the increase of birds not having kept pace with the multiplication of fruit trees. It is important, therefore, that every citizen, who is convinced of these facts, should use energetic methods to prevent others from destroying the birds, and to cause their multiplication. It is a sacred duty which he owes to his country.

#### SUPER-PHOSPHATE OF LIME.

As the subject of agriculture is of the greatest importance to the country, we hold ourselves in readiness at all times to publish whatever may tend to its advancement. The following communication, coming from a distinguished gentleman and agriculturist, is of high value as testimony in favor of Coe's Super-Phosphate of Lime:

I have used Coe's Super-Phosphate of Lime for three years past, principally upon corn, applying it to the crop in various ways. It is my usual practice to spread compost manure broadcast, and put the Super-Phosphate in the hills, about a table-spoonful to each. Its effect thus applied is very apparent and striking, causing the corn to shoot ahead with great luxuriance. The deep green color of the stalks is at once noticeable, at as great a distance as the eye can distinguish colors at all. The rapid, healthy growth of stalk induced by it, helps to insure a large growth of ears, and well matured grain upon them.

I have also used this Super-Phosphate broadcast upon land sowed to oats and other grain, with grass-seed, putting on about 250 pounds per acre. The crop of grain and of straw was considerably increased thereby, and a superb catch of grass obtained. Finally, I have never known the instance where Coe's Super-Phosphate has not, on trial, proved to be an excellent article.

Very respectfully yours,

F. HOLBROOK.

Brattleboro', Vt., March 14, 1861.

PRUNING ROSES.—The *Gardener's Monthly* says:—"The fall-blooming kinds, which flower on the new growth, may be pruned as severely as we wish—in fact, the 'harder' they are cut in the better. In this class are the Noisette, Bourbon, Tea, China, and Hybrid Perpetual, and Perpetual Moss. Without considerable experience it is difficult for the amateur to distinguish these classes; the best way to get over the difficulty is to obtain the catalogues of the principal rose-growers, in which each kind is usually classified."

RAIN-FALL.—With an average annual rainfall of thirty-one inches, the quantity of water thrown down upon each acre of ground is nearly *three thousand tons*.

## MILL-OWNERS AND LAND-OWNERS.

BY JUDGE FRENCH.

The right of a land-owner is one of the rights most sacredly protected by the common law of England, which is the basis of the laws of all our States, with the exception of Louisiana. The land-owner is *land-lord*—lord of the soil—and as such, as a *freeholder*, has, even in our republican times, when most distinctions of estate have been abolished, some privileges above other citizens in most of the States.

The conflict of the rights of mill-owners with those of land-owners, is beginning to attract the attention in this country which it has long received in England.

The most valuable lands in the country are generally those which lie upon the streams and rivers, whether known as *intervales*, bottom lands, swamps or meadows, and these are the lands which are at once injured, if not entirely ruined, by any obstruction of the streams upon which they are situated.

In New England, and many other northern, and some southern States, as in England, manufactures constitute an important element of prosperity, and deserve and receive all encouragement consistent with the public good. Water power is the natural and principal, as it is still the cheapest, agent for turning the wheels of factories and work-shops. Water power can be raised only by dams across the streams, and dams obstruct the natural flow of the current, and throw back the water upon the land above, either submerging it entirely, percolating water through it below the surface, or merely taking away the fall so as to prevent drainage, according to the situation of the land along the banks.

Now, a conflict of interests is inevitable between the mill-owner and the land-owner, and probably no experienced farmer will read this article without being reminded of some instance within his own knowledge where the farmer has been seriously injured by the obstruction of some stream, large or small, passing through or along his farm. Controversies and lawsuits, expensive and almost interminable, occupy the attention of the courts of law, arising from the obstruction, whether rightful or wrongful, of the flow of the water. The mill-owners, usually capitalists, and organized into powerful corporations, know and appreciate not only their rights, but their power, while the land-owners, scattered and often poor, are peculiarly liable to suffer imposition. Mill-owners, like other men, are selfish, and as their business is at the dam, and not on the land above, they attend more to increasing their water power than to its effects upon the farmer.

And thus it happens, that wherever there are mills and mill-dams the interests of agriculture suffer, and there is constant danger that they will suffer wrongfully.

An agricultural paper is not the proper place for a nice discussion of legal rights, and no such discussion is here intended. A few plain statements, however, of the legal rights of land-owners, as against those who own mill-dams, may call the attention of farmers to their own interests, and prevent bad legislation, for water power companies are by no means satisfied to leave the matter to the common law, but are constantly asking aid

from the State in the form of statutes. In several States, as Massachusetts and Maine, there are special statutes, called Mill Acts or Flowage Acts, which authorize the flowage of land, *without the consent of the owner*, making him such compensation as a board of commissioners or jury may think proper to pay him.

A recent occurrence in Boston, before a committee of the General Court, well illustrates the operation of these flowage acts. A water company had applied for authority to raise a pond in a neighboring town, and Hon. Edward Everett appeared to object. He is reported to have stated to the committee, that he had purchased the land in question for a home for his declining years, and that it was a source of great consolation to him, that, as shown by the surveys, it was proposed to put the water upon his land but two feet deep, while all around him was to be covered much deeper.

This strange provision, this sacrifice of the rights of the land-owner to the convenience of the manufacturer, originated at an early day in Massachusetts, when it was important to encourage "corn-mills," which were essential to the very existence of the colonists, and has been enlarged and continued for the encouragement of manufactures.

The right to take private property for the *public* use, as for highways and the like, is every where admitted, and is essential to every government; but the power to take a man's land against his will, for the *private* interest of another man or company of men, is a violation of the first principle of property. As a new question such a proposition would find no favor with any court of law in all Christendom, but the principle has crept so thoroughly into operation in a few States, that to declare it unconstitutional at this late day, would produce infinite confusion.

In the States, as in New York, where no special statutes exist, the right of the land-owner remains sacred. *He has the most absolute dominion over his land, consistent with the equal rights of other land-owners.* No man below him can legally check the water or put one drop upon his land to his injury.

The fundamental principle as to all streams and rivers, as applicable to the land-owners on the banks, translated from the old law-Latin is—*The water runs and ought to run.* This means simply, and such is the law, that all the rights of riparian owners are limited to their use of the water *as it runs.* They make reasonable use of the flowing water for their families, their cattle, and agricultural purposes, but they cannot stop it or divert it from its natural course. The right to raise water by dams does not belong to any man as a mere land-owner. Of course he may raise a pond on his own land if he injures nobody, but his pond is a nuisance to any one whose land is injured by it, and his dam may be torn down without legal process.

The mill-owner, then, has no natural right, no common law right, and if he have no right by special statute, he has no right except what he buys of the land-owners. His right, when purchased, is an incumbrance, a servitude on the land of others, exactly like a right of way which a man may grant to another to pass over his land. If he has purchased a right to flow ninety-nine

of a hundred tracts of land, the mill-owner has no right to flow the other, without consent of the owner of the other.

It has been said that the mill-owner has only such rights as he has purchased. This may, perhaps, require modification. The right to property, even land, may be acquired by adverse use, or possession as it is commonly termed, for a certain time. So a right to flow land may be acquired by adverse use, or prescription.

The term in most of the States is 20 years, so that if a mill-owner keeps up the water, claiming the right to do so, 20 years, he gains the right.

The foundation of this principle is this: that if a man allows another to flow his land 20 years, it is fair to presume that he has granted him the right, and been paid for it.

The principle is well enough, but it probably operates more harshly in these cases of flowage than any other, because the rising of water is very insidious, and its effects hardly observable at first.

The object of these suggestions is,

First—To define clearly the rights of the land-owner.

Second—To show what rights the mill-owner has, with or without a flowage act.

Third—To warn the land-owners where no flowage act exists, to resist such legislation.

Finally—To guard farmers against losing their land by suffering it to be flowed so long as to have lost their remedy.—*Country Gentleman and Cultivator.*

*For the New England Farmer.*

#### WINTER FEEDING OF MILCH COWS.

It is doubtful if the majority of our dairy farmers have yet fully satisfied themselves as to what description of winter feeding is productive of the best results. They have, however, probably learned one important fact; that it is not always, if ever, profitable to make use of such articles of food as will ensure the greatest return of milk. An important consideration should be the condition of the herd in the spring; and if the farmer finds by the use of turnips, and other roots, instead of some less economical food, he has secured a greater yield of milk, on the whole, his success cannot be regarded as complete, inasmuch as the condition of the herd in spring time may be anything but satisfactory to him.

I may not be sustained by a majority of farmers in the assertion that roots for milch cows are not the most economical of food. In this country the cost of labor is too great, to say nothing of the present unproductiveness of most soils, to warrant experiments and large outlays in root growing, and it has always seemed to me that most farmers have committed mistakes in their estimate of the cost of feeding either hay or grain, and should a careful account of the weight and cost of hay and other food be kept, it will be found to be considerably greater than is frequently assumed.

A cow of five years' growth will consume 20 to 25 lbs. of hay daily, and will require besides, in order to afford a good supply of milk, one to two quarts of Indian meal.

From an experiment with a single cow, during the present winter, I have ascertained that 20 lbs.

of cut hay, 12 quarts of shorts (or wheat bran) and one pint of Indian meal, is a moderate daily consumption, and no more than will keep a young and thrifty cow in good condition. Assuming then 20 lbs. of cut hay, and 12 quarts of shorts, as a minimum, for the daily allowance of a single cow, it will be found that the cost of such quantities, at present prices, in our section of the country, cannot be less than 40 cents. This is much greater than is usually conceded by most farmers; and it must be a good cow, indeed, that can repay the owner even the cost of the food.

But my main object in alluding to the subject is simply to say that it is a matter of regret that among the many experiments now being made, some definite and certain plan of winter feeding, more profitable than all others, has not been settled on.

F. E. F.

*For the New England Farmer.*

#### FARMING OPERATIONS MADE PROFITABLE.

F. HOLBROOK, ESQ.—*Dear Sir:*—If you will not consider it too much of an intrusion upon your time and patience, I would esteem it a particular favor if you would advise me as to the best mode of proceeding with some of my farming operations. The matters about which I need information are not new; indeed, I fear you have already given the advice which I require, so many times as to be quite "a-weary" of the applicants. Still, if there are many who have profited by the experience of others, or been lucky enough to hit upon a course themselves with which they are satisfied, there are surely thousands now in the field, and yet to be, who desire to be piloted by those who, like yourself, are well versed in all that requires mind and experience for successful agriculture. Will you therefore allow me, as an indication of the kind of information I desire, to propound the following interrogatories, a reply to which at your convenience would gratify me much.

1. I have a field of several acres of green sward that needs to be plowed up, and I design it for a corn field the coming season. Last August I had a large quantity of muck dug from the swamps, and dumped in large heaps on the nearest dry land. The muck could be drawn directly to this field with much less cartage than if it was first taken to the barn-yards. How will it do to haul the muck directly to the field, and draw manure there from the stables and yards, and mix them in compost heaps? What proportions of each should be used, and will the heaps have sufficient fermentation before planting time? How shall the compost be applied, and in what quantity?

2. My muck bed embraces several acres; the deposit varying in depth from one to four or five feet. I judge it might be made a valuable source of fertility for the farm. In what ways can I manage this muck to advantage for the improvement of the farm?

3. I always had a fondness for farming, but circumstances in early life turned me into other pursuits. At length I have resumed my favorite occupation, and desire to make a pleasant rural home. I have means to farm it as I please, but still, as a business man, and on principle too, I wish to so manage as to farm for a profit, and set

a useful example to others. I am willing to make any judicious investments in the improvement of the soil itself, that will, as a practical business operation, pay a fair return. With this brief preface, I would say that the tillage land of my farm has been rather superficially cultivated, and the surface soil is a good deal worn. I have not much practical experience in regard to soils, but it has seemed to me that the subsoil should be taken into account in judging of the character and capacity of land. I have examined the subsoil in various places, and find it to be mostly a stiff and close brown or yellowish loam, and usually packed down hard. How shall I proceed with this land, what kinds of plowing do I want, how deep shall I plow, how cultivate afterwards, and in short, what plan of improving husbandry shall I pursue to make it productive?

4. I have thirty or forty acres of land near the buildings, which I desire to convert into productive pasture, principally for milch cows. The land is somewhat uneven, but sufficiently level for plowing. It has been impoverished by occasional grain crops, and in the intervals between them by overfeeding with stock. The soil has apparently never been stirred more than four or five inches deep, but the subsoil appears to be pretty good, and tolerably free from stone. How shall I manage to make a good pasture of this tract of land?

5. Can I make profitable use of Peruvian guano, either as a sole fertilizer of land, or as an assistant to fertility on land otherwise well manured, and if so, to what crop or crops can it best be applied, and in what quantity?

6. I have a lowland meadow of fifteen to twenty acres, subject to overflow by freshets setting back from the river. Though the flowing usually occurs in spring, yet it sometimes happens in summer or fall, and therefore grass is the only safe crop to raise. The surface of the meadow is nearly level, but in places there are certain slight depressions, and on these portions the water remains so long after the subsidence of the flood that it stagnates upon and chills and poisons the land. Coarse water grasses are therefore the only product. The soil is a deep, stiff loam. It appears to me that the flooding of the meadow, together with the sediment brought on thereby, would be beneficial, provided the surface water could be disposed of quickly, or made to pass off with the falling of the stream. Now, if I have succeeded in conveying an intelligent impression of the lay and condition of this tract of lowland, will you please advise me how to proceed to make it good sweet mowing land?

7. I have in another place a few acres of what is called bog meadow, which I wish to improve for mowing lands, it being desirable to make all the hay crops I can for winter use. This piece of meadow was imperfectly drained years ago, but the muck being in some places quite deep, and the cultivation difficult, the productions have now become mostly the coarse wildgrasses. I have already drained the meadow thoroughly, cutting off the springs that flowed in from the higher land. I now wish to introduce upon it a better quality of grass. How shall I manage to convert this land into good mowing by the quickest process?

As I before remarked, I am sure that the information I am now seeking to obtain from you,

would be interesting and useful to many others, who, like me, need advice. Therefore, if it would be agreeable to you, I should be pleased to receive your reply through the *New England Farmer*, as I am a constant reader of that paper, but in that case I should prefer to be "*incog.*," as to name and residence, feeling too inexperienced in farming pursuits to appear by name in print.

Very respectfully and truly yours,  
 ———, Feb. 11, 1861. ———.

To ———:

*My Dear Sir:*—I have your favor of the 11th inst., and employ my earliest leisure to respond to it in the way you request. Your interrogatories embrace a wide field of farming, and certainly evince a good deal of interest and enthusiasm on your part in farming matters. I am led to conclude that you will probably find success and satisfaction in agricultural pursuits, for you evidently have a decided taste for them. I have had occasion several times, either by private or public communications, or by both, to answer inquiries similar to some you propose; but nevertheless, your questions shall now be answered as well as I am able to do it in the limited space of one or two communications. Some of them might, singly, well demand a whole article for an answer. I have numbered them, for convenience of reply.

1. It will work well to make the compost of muck and manure on your intended corn field, as you propose. Place the heaps at convenient distances on the field for the final distribution of their contents upon the land, and put in all, say thirty to fifty loads in each heap. The heaps should be piled in alternate thin layers of each material, say of four to six inches thickness—thus more perfectly mixing muck and manure than would be done by putting on larger quantities of each at a time. The piles should be laid up as lightly as possible, and the height should not be more than about five feet, lest the bottom courses should be too much compressed to heat and ferment well. The heaps may be of convenient width, and of suitable length to contain the desired quantity. The composting should be done with system and nicety, so as to secure a fermentation of the heaps that will eat down the coarser portions of the manure as well as sweeten and decompose the muck, and make it the fit food of plants. A bungling workman could rapidly tumble the muck and manure together at haphazard, perhaps driving his team up on to the heap, tipping up a load in a place, and treading the layers down solid, but the result would be that the desirable fermentation and decomposition would not be secured, and the compost would not be prepared for use between this and planting time. But if properly laid up, the piles will soon begin to heat, and in a few weeks may be shovelled over, and in a week or two after that, the compost will be fit for spreading. The labor of shovelling over will be well repaid in the superior fineness and effectiveness thereby imparted to the manure. I have made up heaps of this kind as late as the 10th or 15th of April, overhauled them in two or three weeks after, and had them fit for use by the 10th of May.

With horse or sheep manure, or other strong stable manure where grain or roots have been fed to the stock, you may put at least two parts of

muck to one of manure; but yard manure, being coarser and not so strong and active, will not bear more than equal parts of muck with it. In either case, however, somewhat larger quantities of muck in proportion to manure may be used, provided the muck has previously lain a year or more in pile on dry land, to drain, disintegrate, and in a measure part with its acidity.

At the suitable time in spring, plow your green sward nine or ten inches deep, say with a sod and subsoil plow, if the land is free enough of obstructions to permit the use of that kind of plow; if not, then use a large enough plow of the common green sward form to accomplish that depth of furrow. The plowing should be accurately and nicely executed, making the furrows meet and match well, and shutting the sod down beneath securely out of reach of subsequent tillage. Then spread the compost broadcast on the surface of the plowed land, putting it on as liberally as your heaps will allow. Seventy-five loads per acre is a good dressing, but thirty-five or forty loads is still better. After evenly spreading the manure, plow it in about four inches deep, with a light, sharp plow, gauged to the right depth by a wheel on the beam. This incloses the manure perfectly with mellow earth, which by its mellowness, absorbs and holds the goodness of the manure, and yet the compost is in a situation to be immediately, as well as at all other times, available to the growing crop, and to receive suitable atmospheric influences to promote a perfect decomposition, and to enliven and improve the upturned soil. Green manure, as such, is not much more the food of plants than a raw potato would be for man. The valuable properties of manure are brought out by decomposition. That develops the fertilizing salts which the roots of the crop take up, and which at once give the plant that healthy, deep green color, and thrifty growth which delight the eye and ensure the crop. The green raw manure imparts no such hue to the plants, but gives instead a yellow tinge and a less healthy, vigorous growth. Then, too, green manure, by the heat it generates in pile, is very serviceable in converting muck and other crude vegetable and earthy matters with which it may be composted, into a decomposed and suitable state to become themselves the food of plants, and for this reason, if for no other, it is better economy to compost green manure than to use it to any great extent alone.

2. Doubtless you rightly judge that your bed of muck is a valuable deposit for increasing the fertility of the farm. To manage the muck to advantage, the first thing to be done, is to suitably drain the swamp. Open a substantial and capacious main ditch from the swamp to ground low enough to carry off the water, digging the ditch as low as, or a little lower than the deepest portion of the muck in the swamp. Then ditch around a given square or piece of muck, so as to separate it on all sides from the main swamp, thus cutting off the water, and leaving this piece of muck high and dry, that it may be conveniently dug and carted out to dry land at pleasure. Endeavor to get beforehand with the muck, so as to have a suitable quantity of it always on hand in heaps on dry land, and that has thus lain for a year before it must needs be used for composting. The muck thus becomes dry and pulverized, and

considerably freed of acidity, and is a more perfect absorbent of the gases, liquids and salts of manure, and may be used in larger proportions with manure, than if it were taken soggy and raw from the swamp.

After thus lying in heap a suitable time, the muck may be drawn directly to the field where it is to be used, and there composted with manure, as you have proposed. Or it may be drawn to the barn-yards and sheds in the fall, and a coating of it spread over the bottom of those places, say four to six inches thick, to catch the manure droppings and leachings. Then at two or three different times during the winter, muck may be drawn to these places, and a thin coat, say three or four inches thick, spread over them, thus from time to time mingling the muck with the litter and manure which there accumulate. In the spring, two, three or four weeks previous to planting time, it would pay well to draw out these accumulations, if they are needed for use, to the fields where they are wanted, and pile them in heaps of twenty-five or more loads, at convenient places for further distribution on the land, that they may undergo a heating and pulverizing process before being committed to the soil. This is not absolutely necessary, but it would pay well for the labor, as the compost could then be more evenly spread and more perfectly mingled with the soil.

If convenient, make a water-tight trench behind the cattle in the stables, say twenty to twenty-four inches wide and four inches deep, and fill it daily through the foddering season with dry muck. You can use at least a bushel of muck daily to each grown animal. If you have litter for bedding, put that under the cattle too. The contents of the trench, together with wet portions of the litter, may be daily thrown into a cellar, or under a deep shed open on the south side. The north side of buildings is not a good place for compost to be exposed. By this trench mode of composting, you catch and hold every thing, liquid as well as solid, and the droppings falling warm upon the muck, have an immediate action upon it; the compost being made day by day in small quantities, becomes intimately mingled, and makes superb manure for almost any purpose. A warm and convenient place should be provided to receive the muck for this mode of composting, and it should be filled with dry muck. Some persons, instead of using a trench, spread muck under the cattle, and then cover it with litter, repeating the process daily, and they say they like it well. Others, who have barn cellars, throw the manure of the stables there, and at short intervals spread muck over it. But if you practice that way, see that your cellar is not too close, damp and dark, for the compost needs suitable atmospheric influence to promote in it a wholesome fermentation and decomposition. Deposit your horse manure in a cellar or covered pen, frequently throwing muck upon it, and let a few swine work it over. You can thus preserve this very active, volatile manure from injury by overheating or loss by evaporation, and make a very effective compost.

You can compost dry muck with unleached ashes, using two to four bushels of ashes to a common cart buck load of muck, mixing the pile in thin layers at a time of each, and shovelling

over once before using. Or compost the muck with lime, dissolving, if you please, a bushel of salt in water enough to dry slake about five bushels of lime, and then using one to two bushels of lime to a cart load of muck. These are excellent composts for top dressing grass land, for fruit trees and shrubs. You can find the process of making these two composts, and indeed all the others above named, more fully detailed in back volumes of the *Farmer*.

In another communication I will endeavor to answer your other inquiries. F. HOLBROOK.

*Brattleboro', Vt., Feb. 24, 1861.*

*For the New England Farmer.*

#### HOW TO MAKE MILK CHEAPER.

MR. EDITOR:—The only way to gain a practical knowledge of a science or profession is by personal experiment and application, or by availing ourselves of the experience of others. To no profession does this apply with more force than to that of farming; and the only way to perfect the science is to avail ourselves of the experience of others, carry forward the experiments began by them, and communicate the results to the public, that they may be benefited by our labors, and “learn the evil to be shunned, the good to be pursued.” He who acts on this principle adds to the sum total of knowledge relating to the subject acted upon. Hence the value and importance of book farming. Farmers, as a class, are very loth to deviate from the beaten track of their fathers, and adopt any new method or notion. They require “line upon line” to awaken their ambition and to stir up their dormant energies.

Acting according to the principles stated above, I wish to add my mite to the sum of agricultural knowledge on a subject of great importance to a large class of your readers, viz:—*Milk Raising and Cultivation of Roots*. I have been trying for several years to obviate the necessity of expending so much money for feed for cows during the winter, as our profits are greatly diminished by such outlays, and think I have found a substitute which can be raised very cheaply, and will create a large flow of milk of good quality. I refer to the *Mangold Wurtzel*. I believe them to be the best and most profitable crop that can be raised on a milk farm. My method of raising them is as follows: I select a piece of good, strong land, rather moist than dry, and free from stones, that had been planted the previous year; and as early as possible in the spring, cart on 30 ox loads of good manure per acre; spread and plow it in immediately and let it lay till the last of May; then plow, harrow and brush it to break the lumps; mark off into rows and hills, 18 inches by 12 inches; let a boy drop one seed in a hill; follow with a hoe and cover up, and with a one horse roller roll all smooth. It is of great importance to have them planted in hills at regular intervals to facilitate the operation of weeding, and as it is impossible to sow the seed with regularity with any machine I have ever seen, we must resort to planting by hand, which in the end is the most economical. A man and boy will plant one-half acre per day. My marking machine is as follows: Make two wheels 20 inches in diameter, of plank; to the rims affix

cones, 12 inches apart, 2 inches long, and 2 inches in diameter at the base; attach the wheels to an axle 18 inches long, add a spear or handle, and it is complete. As soon as the beets are out of the ground, run a wheel hoe with a sharp knife 15 inches long between the rows, then let them stand a week or ten days, then repeat the operation, and with a hand hoe cut between the hills, and the work is done. This must be repeated as the weeds show themselves, and be careful and not let the weeds get the start, as it will require extra labor and patience to subdue them. As from 2 to 4 plants will come from one burr, I prefer to let them all grow, as I am satisfied from observation that I get more bushels than when I thin out to one plant. Harvest before the hard frosts. From 15 to 25 tons per acre is the usual yield. Brother milk-raisers, try them. You will not regret it. M. H.

*Bolton, March, 1861.*

REMARKS.—We believe our correspondent is correct in his views of making milk much cheaper than we have done it, by producing and feeding roots. Many persons complain that beet and mangold seeds do not come up well. We think it is because they are sown too deep. They are large, and soon become moist, and in that condition if they do not feel the solar heat, they soon rot. If the “cones” or pegs of his “marking wheel” make holes two inches deep, we should think the seed would get too low.

DRINK PURE FRESH WATER.—Set a pitcher of water in a room, and in a few hours it will have absorbed nearly all the respired and perspired gases in the room, the air of which will have become purer, but the water utterly filthy. The colder the water is, the greater its capacity to contain these gases. At ordinary temperature, a pint of water will contain a pint of carbonic acid gas, and several pints of ammonia. This capacity is nearly doubled by reducing the water to the temperature of ice. Hence water, kept in the room awhile, is always unfit for use. For the same reason, the water in a pump stock should all be pumped out in the morning before any is used. Impure water is more injurious to the health than impure air.

TO CORRESPONDENTS.—We have before us several articles containing many excellent ideas which we should be glad to publish, if they were not woven in with so many subjects that are not of a kindred nature. The articles are also very long. We cannot publish one long article without excluding those of two or three other correspondents, who become disappointed and dissatisfied by not having a timely hearing. While we feel indebted to correspondents for their favors, we beg to remind them that when they discuss a matter, it should be upon one single topic, and not mingle two or three or more together—and that no article should exceed a column and a half.

### THE DELAWARE GRAPE.

This delicious grape was introduced to the public by Mr. THOMSON, of Delaware, Ohio. Its great excellence at once attracted attention. Indeed, so highly was it esteemed, that many supposed it to be a foreign vine, identical with the Rose Chasselas, and thousands of vines of that variety were sold for the Delaware.

It is difficult to understand how any one, familiar with the Frost and Clinton grape should have failed for one moment to recognize its origin.

Some of our western horticulturists, if not in theory, at least in practice, appear to have understood its relation to the Clinton, for I have growing upon my grounds four vines obtained from Cincinnati, bought as Delawares, and for which I



had the pleasure of paying twenty-one dollars. They turned out to be Clintons, and could have been obtained of Hovey & Co., for about one dollar each. Mr. Cabot, Mr. Walker, and several others, were treated to the same happy result.

Our Cincinnati friends have at last found out their mistake, and are planting their vineyards entirely with Delawares. Mr. John E. Motier is

planting them by the thousands, "and is determined to plant no other vine." Mr. Frederick Schnicke, thinks it not only the best American grape, but the best in the world.

From these and very many other testimonials, it would appear that the Delaware is likely to have full justice done to it.

The Delaware is at first a slow grower, but when

once established is all that could be desired. It is perfectly hardy, and ripening its fruit full three weeks before the Isabella. The limbs and berries are medium size, and of a rich vine color.

It is difficult to describe the flavor of this grape. To say that it is juicy, winey, sugary, spicy, with a fine delicate aroma, is to use words that convey very little meaning except to those who are familiar with the fruit.

The above description is furnished us by Mr. E. A. BRACKETT, of Winchester, a gentleman of large experience in grape culture, and who is perhaps as well qualified to judge of grapes as any person among us.

#### LECTURES ON HORSE TAMING.

During the month of March the citizens of Boston were favored with a series of lectures on horse-taming, by the celebrated JOHN S. RAREY. The audiences were large, and the greatest interest was manifested in the subject.

The lectures were given at Music Hall, and an enclosure about twenty feet square, surrounded by posts firmly fastened and strengthened by ropes and iron rods, was erected upon the stage, for the safe display and subjugation of the vicious animals that were to be submitted to Mr. Rarey's treatment. The number of lectures, originally fixed at three, was afterwards increased to five, and a free lecture was also given to the truckmen, drivers, and others employed in the care of horses.

Mr. Rarey opened his lectures with a description of his subjugation of Cruiser, who accompanies him. This renowned horse is a thoroughbred English race horse, and at the age of two years he had reached the greatest speed known. His viciousness now began to manifest itself, and up to the time of Mr. Rarey's visit to England his owner had been unable to do anything with him, and it was absolutely dangerous to approach him. He was kept in a brick stable, and wore a heavy halter and iron muzzle which had been put upon him by stratagem. His spirit was well tested in his struggle against Rarey, after the straps had been applied. Most of the horses which are brought forward for treatment will yield in a few minutes—Cruiser resisted for three hours. He is now in a state of complete subjection, and as tractable as could be desired.

After the exhibition of Cruiser, Mr. Rarey introduces one of the subjects for the evening's illustrations, generally tractable, but brought forward on account of some particular vice which it is wished to correct. As a fair example, and a correct description of his manner of proceeding, we copy from the *Advertiser's* report of the first lecture:

The first horse introduced after Cruiser was one owned by a Mr. Savage, of this city. His principal fault was great fright at an umbrella, and this was amply demonstrated by trying the experiment of opening and shutting an umbrella before him. Mr. Rarey then began his process of bringing the animal into subjection, giving the needed explanations from time to time. He said he had studied the horse's nature fully, and that he used no magic power, but taught the horse as he would a child. It is not the proper way to run before a horse and try to catch him quickly. Touch the horse lightly, said he. A lady can tame a wild horse in less time than a man can, simply because she is more gentle. The horse has a delicate and sensitive nature, and you should approach his head as the seat of this sensitiveness as gently as possible. The system of "rough breaking,"—appropriately named,—is as bad in its application to the horse as it would be to children; and more so, because the latter can understand you. He said that he had never seen a naturally vicious colt; viciousness resulted from their training. The horse is nowhere so well understood as in Arabia. There he is brought up in the tent as a child and with the family, has received no rough usage, and knows nothing else but duty. The first difficulty in this country is the use of the halter. A heavy rope is generally used, whereas the proper one would be as easy and light as possible. The intelligence of the horse should be appealed to, and the very look and gesture should be easy and pleasant, as the animal has a great discrimination in these matters. He then exhibited two small straps which he said were the only contrivances he had ever used. He approached the horse slowly, patting him gently, and taking his left fore foot in his hand, and placing one end of a strap about the ankle and the other above the knee, bent the leg and strapped it firmly in that position. He then led the horse about on three legs, remarking that any horse, however vicious, in this situation could not kick or run away. With the same gentleness that marked all his movements, he placed a surcingle about his body, and fastening the other strap about the ankle of the right forefoot, drew it quickly as the horse started, and he, thus being deprived of the use of his fore legs, came down upon his knees, subject to the will of his master. Mr. Rarey then pressed gently upon his side and drawing his head towards him, finally succeeded in compelling him to lie down. Some time was occupied in caressing him, showing him the umbrella, rubbing him with it, opening and shutting it before his face, until he became perfectly familiar with it. The straps were then loosened one by one, and when the horse regained his feet, Mr. Rarey mounted him, opened and closed the umbrella over his head, and beat a drum resting upon his neck, after having acquainted him with it in the same gradual manner. He then retired amid the applause of the audience.

By this simple method the horse is taught that he can be brought to subjection, and in the process, kindness and gentleness avail more than the force which is customarily used on vicious horses. The wildest horses, said Mr. Rarey, can, simply by rendering them helpless and unable to do any mischief, be made accustomed to sights and sounds hitherto terrifying, and thus be made perfectly tractable. But the process is one of time and the work necessarily gradual, for "haste makes waste." He teaches the horse to wait his movements and not be self-willed. Moreover, he is to be tamed *all over*; his entire body must become accustomed to objects. But the head is the seat of knowledge, and the horse is to be taught through that, and what we wish to teach him is not to be beaten through his back.

**THE HYACINTH.**—Like the Rose, the Hyacinth is a universal favorite, and although great diversity of taste exists in floral matters, the merits of the Hyacinth are never questioned. It is loved by every one for its beauty and its fragrance. It will thrive in almost any soil; and will flower almost as finely when grown in water as when planted in the richest compost.



For the New England Farmer.

### MICROSCOPIC RESEARCH.

EXTRACTS FROM DR. HARRIS ON "INSECTS AFFECTING FRUIT TREES."

#### SWOLLEN BRANCHES OF THE APPLE TREE.

"On the 31st of May, the Hon. M. P. Wilder sent me some pieces of the limbs of the apple tree, which were singularly enlarged in diameter to the extent of several inches. The specimens were carefully examined by Prof. Asa Gray and myself, without insects, their punctures, or their tracks being found therein."

#### WARTS OR EXCRESCENCES ON PLUM TREES.

"These have been attributed by many persons to the puncture, or to the presence of insects therein. I have not been able to find one or the other in the incipient warts, or in their immediate vicinity."

#### PLUM TREE INSECTS.

"The Plum Weevil *Curculio* continues to baffle all attempts to exterminate it. The succulent warts of the plum tree provide for it abundant resources in default of plums, its more appropriate food. We may save our crop of plums by covering the tree with fine netting."

We find in these extracts the frank "opinion" of Dr. Thaddeus William Harris, who has given to the world the best and ablest "Treatise" on Entomology ever written by an American author. These extracts were from his pen subsequent to May, 1854, two years after his "Treatise" was published, and shortly before his decease. We have reason, therefore, to believe they contain the full extent of his knowledge of the contents of these "warts." His "opinion" is clearly expressed that he "could not find punctures or insects in them, or in their immediate vicinity," and he believes they "constitute food for the curculio." Now that the tomb has closed over his remains, must the twin sciences of Entomology, Embryology, Botany and Microscopy cease in their progress? Although he labored assiduously, and is justly commended for doing his work well, he did not exhaust the wide fields of yet unexplored scientific research and development. I do not intend by these remarks to detract from the just fame he has acquired, nor as doubting his "opinions" expressed and qualified, so far as he has made researches and developments. But I beg others, who quote him as "authority," to remember that all such reference must, in all coming time be considered as the "authority" of "his day and generation." Others who come after him may continue to tread in his path, and yet find beyond the limits of his journey, unexhausted fields for their researches. Near the end of his journey of "research" he assures us that he "cannot find perforations or insects in these incipient warts."

"Microscopic research" does develop insects in these "warts." They are there. And the question is, what species are they? and when does their existence commence? From the investigations which I have thus far briefly made, it appears conclusive in my judgment, that the eggs are deposited in the summer, and they, or their embryo, or the larva, remain in the "warts" until the following spring or summer. My first microscopic examination, by the dissection of these "warts,"

was made in August last. Early in the summer my trees were full of fruit, but at this time, nearly all had dropped from the trees, or had become mouldy and withered on the trees. Not one quart of sound plums were gathered, where there should have been many bushels. The "warts" vary in size from a small to a large sized pin's head. Nothing can be seen in the interior of these "warts" with the natural vision. The microscope only can reveal the interior objects. Curiosity induced me to attempt to count the huddled living mass thus visible. According to the size of each "wart" examined with the microscope, I found the number of insects to vary from 100 to 300 in each "wart." This unlooked for, and wonderful development, induced me to examine various works at command, to obtain some published description of these "warts" or their contents. I was unable to find any particular statement on the subject except what I have here quoted. From August to the middle of November, I continued weekly to watch, expecting further development, but up to the latter period they continued in their secluded position, and if any change was visible, it was only a very slight increase in size. Since the middle of November, they have only exhibited the torpid appearance of all insects during their winter or hibernating condition. To test the fact of their retaining vitality during the several cold spells this winter, I have repeated my examinations. January 2, '61, while the ground was covered with snow, and the thermometer 16° below freezing point, I made a minute microscopic examination, and at the time made the following record:—

[I see no change in these larva insects during the two months since our cold weather first commenced. At first view as now seen, they are torpid and motionless in the cavity or centre of the "wart," and appear like a cluster of minute eggs. At this time I renewed previous experiments, such as applying warmth to incite animation. They were exposed in a warm room, and from its heat and the sun's influence combined, they became animated in half an hour. This reveals conclusive evidence, that, in this larva state, they are thus hibernated. The genial warmth of spring will, judging from the above experimental tests, bring them from their hibernation; and their future development or chrysalis changes will open a new door for further entomological or other scientific investigations by which their genus may be determined and described.]

This development I have made by my own assiduous "microscopic research." I have good reason to believe, from what Dr. Harris says of those "warts," that it is a new embryological discovery, yet undescribed by any entomologist or microscopist in America.

Certainly Dr. Harris, from his extensive knowledge, would doubtless have given extracts, if others had described these insects, and no one would hardly think of searching beyond his writings for the priority of such an embryological record. I have, however, perused several works of foreign and American publication, none of which have given particular records of these "warts." These "warts" are clustered round the base of that part of the limb forming each year's new wood, and vary from 10 to 15, making 1500 to 2000 insects, subsisting suctorially upon this portion of the

limbs. Can you, Mr. Editor, or any of your correspondents, furnish extracts or name any publication, and the page which gives any description of these "warts" and insects found in them? I shall watch their further development.

*Baltimore, Jan. 25, 1861.* LYMAN REED.

#### EXTRACTS AND REPLIES.

##### SWEET CLOVER.

Noticing your remarks about the Italian or crimson clover, I send you some seed of what I have called sweet clover, on account of the sweet smell it has; I would like to know if it is the same you speak of? I have a few pounds of the seed. In the time of blossoms I notice it is very attractive to honey bees; it blossoms the second year. In growing it resembles what you speak of.

AMOS DOANE.

*Royalston, Jan. 21, 1861.*

REMARKS.—Thanks for the seed sent. As we have no other seed but yours by us, we cannot tell whether they are the same or not.

##### NORFOLK TRANSACTIONS.

By the kindness of the corresponding secretary, I have been favored with this handsomely printed pamphlet of 140 pages. The first twenty pages contain an address by an eminent scholar, who cultivates a farm of *one square rod* in the city of Boston, which affords illustrations of draining the pockets of those who visit it. The next paper is a report by the President and Secretary, brief and pithy—valuable only for its appendages. The next is twenty pages of report by a supervisory committee containing very sensible remarks by an experienced man, and affording much instruction. Then follow several reports and statements, not unlike what we have heretofore seen in publications annual for forty years. Then eight pages on the hog, from which much fat can be extracted. Then several other commonplace reports and a song, which shows that even ministers sometimes have music in their souls. Then twenty pages of names of officers and other great men of the society, and a list of premiums offered for another year.

On the whole, the pamphlet is a creditable specimen of the manner in which the State's bounty is expended for the instruction of farmers.

*March 9, 1861.*

P.

##### DOGS AT LARGE.

I agree with your Orfordville correspondent in all his suggestions except one, viz., "his incapacity for writing a newspaper article." I think he is capable of writing, and his article shows it. His remarks are clear, to the point, and short; such should writers for an agricultural paper ever be.

He speaks of dogs and their owners in the country as a nuisance; they are such in the city, and instead of a tax of \$2, their owners should be taxed at least \$50—unless the dog could be restricted to the owner's own enclosure.

I know of no reason why a man should be allowed to keep a dog, or a family of children, to the injury or annoyance of his neighbor, yet how often is this the case. His children are kept from

the village or city schools, and suffered to run at large with his dog or dogs, to the disturbance of industrious and useful citizens.

DELTA.

*Boston, March, 1861.*

##### LABOR-SAVING FIXING FOR HOUSEKEEPERS.

Knowing that you go in for all really substantial improvements in house-fixing, I send you the following.

Looking into a lady's pantry, the other day, I saw what I supposed to be a common writing-desk on the floor, in one corner, quite out of the way. On opening it, I found it had a wire bottom; that the floor under it was taken up, and that it stood over the cellar. It was used in cold weather for keeping all such small things as are wanted at every meal, and that you wish to keep from freezing. In the summer it was used for holding such things as it is wished to keep cool. It was, in fact, a little cellar up stairs, and saved the good woman having to run up and down stairs a thousand times a year.

This little convenience may be common, but as I had never seen one before, I thought it would do no hurt to let folks as ignorant as I was have the benefit.

X.

REMARKS.—Certainly not—no one person yet knows what conveniences all the rest of the world has. We shall be glad to hear from you on any topic you think will be valuable to the readers of the *Farmer*.

##### TILE FOR AN AQUEDUCT.

In the *Farmer* of Feb. 16 is a description of Rowe's Patent Drain Tile, which I think might be substituted for pump logs if they were laid in cement. Will you give me your opinion on the subject? I want to lay logs, or something, to my barn, but the water would have to come up hill. Will you tell me what you think about it, whether I can get it or not?

WILLIAM S. THORP.

*Underhill, Vt., 1861.*

REMARKS.—We have no doubt but the tile, well laid in hydraulic cement, would answer well, and be the cheapest article known to us, in the long run. If the water is desired at the barn, and that stands considerably lower than the source of supply, there will be no difficulty in passing it over higher ground between the source and the outlet. Care must be taken to get the tile below the frost, so that neither cement or the outside of the tile should freeze.

##### PROFITABLE HENS.

Your correspondent of Feb. 15, in the *Farmer* of March 2, says he has 37 hens of the Chittagong and Dorking breed that have laid him, from the 15th of November, 1860, to the 15th of February, 1861, 1542 eggs. I have 10 hens of the Spanish and common breed that laid me from December 1, 1860, to January 1, 1861, 216 eggs, and from January 1 to March 1, 295 eggs, making in all, from December 1 to March 1, 511 eggs from 10 hens, which I consider rather better than your correspondent's statement of February 15.

*North Raynham, 1861.*

OTIS HOMES.

## REARING CALVES ON HAY TEA.

I wish to inquire if you or your subscribers can give information respecting the rearing of calves on hay tea? If so, any information will be thankfully received. A SUBSCRIBER.

*Shaker Village, N. H., 1861.*

REMARKS.—We have reared calves for several years upon hay tea. Take the calf away at one day old. Milk into a pail, put the hand into the milk and one finger up into the calf's mouth, and he will soon suck up a quart or two. After doing this two or three times, add a little hay tea, increasing the quantity of tea and lessening that of milk. If you skim milk that is sweet, add that to the tea. Make the tea by steeping a little *perfectly sweet English hay* as often as you wish to feed the calf, and give it to him as warm as milk is when taken from the cow.

## SHEEP, DOGS AND POVERTY.

I noticed in your last week's paper a few lines concerning "Sheep, Dogs and Poverty." I cannot say a great deal about sheep, because I do not keep them and they are not raised to any great extent in Massachusetts. But I can say something in regard to dogs, because I have got one that I would not part with any more than I would with my left eye. The writer alluded to states that "when a man is poor he gets him a dog, and when very poor, two!" I don't think that is the case in Massachusetts. The dog law is a good thing, because there were once a great many curs that were a nuisance. He says that dogs and their owners are nuisances. Then I suppose I am one, because I am a dog-holder. According to his theory there are a great many nuisances in this world; I don't think we shall kill our dogs because he thinks so. H. P. K.

*Lunenburg, Mass., 1861.*

## FENCE POSTS.

About the first of June, in 1840, I made two pairs of hemlock bar-posts. The sticks of which they were made were about ten or twelve inches in diameter at the largest end, sided down to four or five inches, to the top of the ground, being round below, cut at the time, and of course the bark stript off. One pair was set in quite moist ground, and is now standing, though I think, nearly used up; the other pair was set in dry, loamy ground, and broke off in the fall, from a high wind, the fifteenth year after they were both set. The same sticks cut in the winter would not have lasted more than half as long. C. W.

*Johnson, Vt., 1861.*

## EXPERIMENTS IN TOP-DRESSING.

I have read with much interest the communication of Mr. Rogers in your paper of Feb. 9, on the above subject. I know that any experiment which he undertakes will be carefully performed, and that the results may be relied upon. I am not surprised at those results for the past year; they are what, from my own observation and experience, I should have expected. The results for the next two or three years will, however, test

the comparative value of these manures as a top-dressing for grass lands; and I shall be much surprised if they do not show the green cow manure to be much the greatest, so as to put it far beyond question. — R. I. I.

## DEATH OF MR. PINNEO.

I regret to say to you that Mr. JOSEPH PINNEO, of Hanover, died last Tuesday. The funeral was attended on Thursday. He was, for the last twenty or twenty-five years, extensively engaged in the nursery business, and it was through his energy and zeal that nearly all the improvements in fruit and orcharding in this section have been made. He was the pioneer, and the fruit of his labor extends over a large extent of country, and is a blessing to the world. It is hard to part with such men as DOWNING, COLE, FRENCH and PINNEO. I am in hopes some one will send you a tribute to his memory worthy a place in the *Farmer*.

*Hanover, N. H., 1861.*

## WORMS IN HORSES.

I see inquiries in the *Farmer* as to what will kill worms in horses. You remarked that wood ashes is good. When ashes does not effect a cure, take bass wood bark and boil it in water down to a strong liquid, then take whatever grain is given to the horse and soak it in it over night. Give it to him in the morning on an empty stomach; follow giving it three or four mornings, then give something physicking and in a short time a cure will be effected.

*Conway, N. H., 1861.*

E. WALKER.

## A BIG CALF.

I sometime since gave you a short description of my Durham bull calf, and promised to let you hear from me in relation to him. I did not weigh him at one year old, as I had intended, being unwell at the time, and long after it was very icy in our street. At 13½ months old he weighed 925 lbs., measured 6 ft. in girth, and 11½ feet from tip of nose to tip of tail.

*Stockbridge, 1861.*

S. BYINGTON.

## THE DELAWARE GRAPE.

Would the Delaware Grape, spoken of by Mrs. Porter in the *Farmer* for February, page 85, be hardy in this latitude, 43°? And if so, where can it be obtained?

*Milford, N. H., 1861.*

S. GUILD.

REMARKS.—With special care, perhaps you might succeed with it—but we think it would be quite uncertain. Any of the seedsmen at the agricultural stores would furnish it.

A DISTINGUISHED physician lately announced that one reason why so many people have the dyspepsia is because they have no sympathy at table. They eat alone at restaurants, and devour their food like wild beasts, instead of sitting at the table with their families, where their sympathies would be called into healthful activity, and where they would eat like civilized beings. There may be something in this idea. At any rate, it would do no harm to test it.

*For the New England Farmer.*

### THE WHEAT CROP.

MR. EDITOR:—I would like to see more wheat grown in New England, knowing it can be done with profit, it being much better to seed down with than oats, even if it grows only straw. The land I have worked is a gravelly and sandy loam, the soil from six to twelve inches deep, with gravelly bottom. Crops had been taken off until the moss had so covered the green sward that all it would yield was about half a ton of wire grass to the acre. I begin by turning the sod under nine inches, in the fall; in the spring I harrow in five cords of manure, made up of muck, oak leaves, hog and stable manure, and plant potatoes, with a hand full of ashes and plaster in the hill.

The next spring I plow the same as before, the average depth of the soil, and plant corn, manuring in the hill, and no more. The next spring I spread broadcast two to three cords of coarse stable manure, plow under the same, and sow spring wheat, two bushels to the acre. My average crop has been twenty-seven bushels to the acre. I do not speak of this as a large crop, but what may be done on almost any farm in New England, considering the quality of land and quantity of manure applied.

Spring wheat should be sown as early in the spring as the ground will admit, but not so early as to need more than one good harrowing each way, as too much tramping packs much of it, causing it to start uneven. If ashes, unleached, are handy, they will be valuable spread on and harrowed in with the wheat, giving the plant a more vigorous start, and with a healthier, deeper color. This crop can be doubled by a liberal supply of ashes in this way.

*Plaistow, N. H., March, 1861.*

REMARKS.—A sample of our correspondent's wheat came with his letter. It is very clear and handsome. We rejoice that the cultivation of wheat is finding favor all over New England.

*For the New England Farmer.*

### RETROSPECTIVE NOTES.

COBS AND COB MEAL.—In the *N. E. Farmer* of Feb. 23, and again in the monthly edition of the same for March, MR. SILAS BROWN gives us some facts and opinions intended to throw light upon one of the several questions which have been agitated for some years past, in regard to the use of cob meal, along with corn meal, as a feeding stuff for stock. Of the several questions to which the practice of grinding corn and cobs together has given rise, Mr. B. confines himself to the one which inquires whether or no cobs have any nutritive value, and, if any, how much either absolutely or comparatively with other feeding stuffs. The two more important questions which have been raised and discussed in reference to this practice of grinding and feeding corn and cobs together, namely, that which relates to the safety of feeding an article which contains so many sharp, flinty scales or shells, and that which inquires whether it is economical, or more probably wasteful, to pay millers for grinding a substance of so little nutritive value. As to

these two more important questions, Mr. B. is, at least on the present occasion, entirely silent. As however, all the three questions, which we have above named, are more or less connected, and as the current volume of this journal could scarcely confer upon its readers a more useful service than that of helping them to ascertain what is true, and what is not true in regard to either or all of these questions, I propose to continue the discussion commenced by Mr. BROWN, hoping that some other of the members of the great New England Farmers' Club, which is composed of the several thousands of readers of this journal, wherever scattered abroad, will continue and keep up the discussion, until the questions named shall be settled as nearly as can be.

First, then, as to whether there is any nutriment in cobs, there is quite a diversity of opinion among feeders and farmers generally; some regarding them, as Mr. BROWN says, as no better than sawdust, and others thinking that they contain considerable nutriment, enough even to make it a paying business to get them ground at the mills. That there should be such a diversity of opinion among practical men, while unassisted by the analyses of scientific men, or agricultural chemists, is not at all to be wondered at, for none of the attempts that ever we have read or heard of to determine whether cobs contained any nutriment, or how much, were made with exactness or accuracy enough to decide this question, and some of the observations which have been taken as proofs that cobs contain more or less nutriment, (such as the fact that cows and horses will eat them greedily, while soft, especially such as have been thrown out of a pig-pen,) are by no means proofs of sufficient validity or conclusiveness.

This uncertainty, and consequent room for diversity of opinion among practical men, has been removed to some extent by the scientific investigations of such chemists as Drs. Salisbury, Chas. T. Jackson, &c. By the help of the analyses they have made, the opinion seems now quite prevalent with competent judges, that cobs are capable of affording to some animals, ruminating ones especially, about as much nutritive matter as the same amount of good wheat straw. Mr. BROWN has expressed this prevalent opinion quite correctly and pithily when he says, "On the whole, I have made up my mind that cob meal is very good for cattle, but worthless for hogs. Cobs, by the pound, are probably of equal value to butts and stalks, and when ground with the corn, are a substitute for chopped fodder for cattle and horses."

The second question about grinding cobs relates to the economy, or the wastefulness of paying millers for reducing to a coarse meal a substance containing no more nourishment than good straw or the butts and stalks of corn.—Here, again, opinions differ. Some, we have found, had never counted the cost, or had ever supposed that it cost any more to grind the cob along with the corn, than it did to grind the corn alone; and these men, of course, had never had a thought of the possibility of grinding cobs being a wasteful, uneconomical operation, or one which could not pay, save in a few rare cases when all kinds of cattle food were scarce and dear. There seems to be little difficulty in convincing those

concerned of the wastefulness of grinding cobs, when they are informed that at mills where one-tenth is usually charged for grinding corn, or about five cents per bushel, when corn is about a cent per pound. it is customary to charge eight cents for grinding two bushels of ears, equal to one bushel of shelled corn and the cobs belonging thereto; and that, as there are generally about twenty pounds of cobs in two bushels of ears, the usual charge of millers makes the grinding of these twenty pounds cost three cents, or at the rate of three dollars per ton. The conclusion to which one neighbor arrived, after taking these details as to the cost of grinding cobs into consideration, is quite likely to be that of a good many others: "Why," said he, "it is quite plain that it is wasteful to grind cobs, for it would cost much less to cut up straw or stalks very fine in a cutting box, and mix the corn meal with that, or to feed the corn meal in any other way, and leave the stock to pick up as many of the cobs as may suit their taste or instinctive cravings."

But the third question about this practice of grinding and feeding cob meal still remains, and is by far the most important of any of them, as it relates to the safety of feeding cob meal. A great many facts have occurred, some of which only have been put upon record in our agricultural journals, which prove very conclusively that the feeding of cob and corn meal have in a great many instances produced disease, and even death. On the other side of the question, nothing has been alleged, and indeed, nothing can be, except merely that this one and that one who have been in the habit of feeding corn and cob meal more or less extensively, has never seen any bad results from it in his sphere of observation. But as the endeavor to do what we have undertaken, namely, to enable those concerned to arrive at the truth in regard to this question, would involve us in details of some considerable length, we will leave these to some future time. Meanwhile, we would like to hear from some of our brother members of the club.

MORE ANON.

*For the New England Farmer.*

**DO MANURES WASTE BY EVAPORATION?**

MR. EDITOR:—We frequently hear it enjoined upon the farmer to plow in manures as soon as spread, just as though the elements were combined to rob him. Now if we look at the operations of nature in her endeavors to repair her drooping energies, we shall find, that she is no such spendthrift.

Notice, if you please, the fertile prairies of the West, and tell, if you can, if their fertility is due to any other source than the rank growth of vegetation that year after year falls and rots upon the surface? The rich intervals of our own New England are all instances of surface manuring. How is forest land enriched, except by surface manuring? I would not be supposed to argue the placing of all manures on the surface—far from it. Manures on plowed land should be thoroughly mingled with the soil from the surface to the depth of four to six inches. But it is the general opinion in this vicinity that all manures should be covered with earth, consequently we

see but little top-dressing of mowing land, a thing which should be practiced on every farm.

All gardeners recommend the use of well-rotted manure. If well rotted manure is good in the garden, it is good in the field, and in order to have rotten manure, we must have that which has been exposed to the atmosphere, and consequently to evaporation. The question is, does it lose any of its value in rotting? If we mix a pound of salt with a gallon of water, and evaporate the water, we have the pound of salt still. The process of making maple sugar is an instance of evaporation without loss.

*Wells, Me., 1861.*

M. LITTLEFIELD.

REMARKS.—When you go into a room where there is a full blown rose, you smell its perfume, and the rose has *lost* just so much as you smell, and as much more as there is in the room. If the stem and leaves of the rose rest upon water, it will remain quite fresh several days, but its fragrance will all be gone. We understand that a similar operation takes place in exposed manures. The process of the decay of vegetable matter on prairies is hardly a parallel case, as the decay is in small quantities, at any one time, and the process very slow.

*For the New England Farmer.*

**THE EASTERN PROLIFIC CORN.**

The seed of the "Eastern Prolific Corn," a name which I gave it, originated, I believe, in Maine, and was first known to me about two years since, although some farmers in this vicinity claim to have raised the same kind a number of years, and obtained much larger crops than I have been able to do, thus far. Last season I raised on Elm Farm, Berkley, Mass., a little more than eighty bushels of good sound corn per acre. My corn land is what would be termed plain, level, and of a light, sandy loam. I plowed thoroughly ten or twelve inches deep with "Birch's Patent Iron Beam Plow," used five loads of rich compost, and twelve bushels of ashes per acre—the ashes being used at weeding time. Planted in hills about three and a half feet apart each way, in May, 16th and 18th, putting two cords of manure in the hill. I allowed five stalks to each hill, perhaps four would have done better, cultivated both ways, and hoed about the middle and last of June, and subsequently a third time, without plowing. Cut and stacked the corn the first part of September, and allowed it to remain in the field some five weeks. The value of the crop per acre was:

|  |                  |
|--|------------------|
| Corn.....                                | \$2.58           |
| Corn fodder and improvement of land..... | \$30.00—\$112.58 |

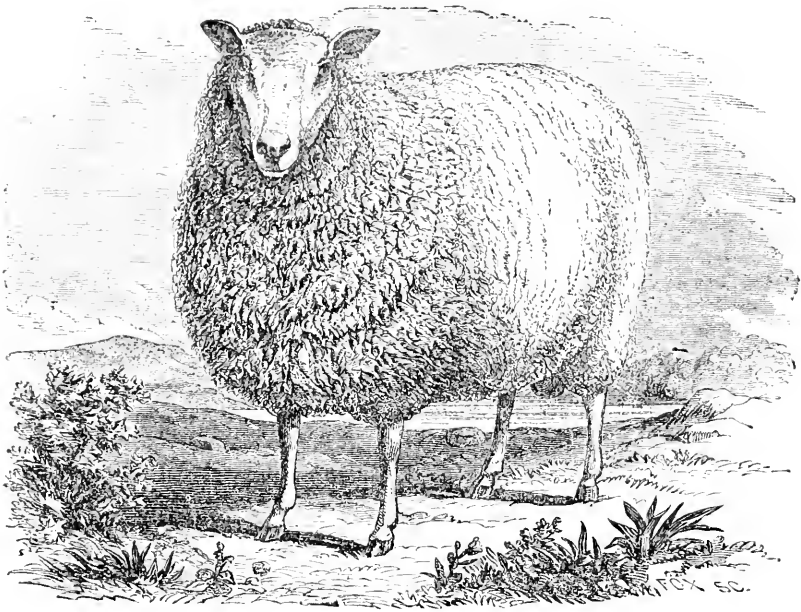
The expense of cultivation was for

|  |               |
|--|---------------|
| 5 cords of manure on land.....               | \$40.00       |
| 12 bushels ashes.....                        | 2.00          |
| Plowing, planting and hoeing.....            | 14.00         |
| Harvesting.....                              | 7.00          |
| Interest on land, taxes and seed, about..... | 7.00— \$70.00 |

Net profit per acre.....\$42.58

*Taunton, 1861.*

D. S. DICKERMAN.



PURE COTSWOLD BUCK---"DR. KANE."

Last December, when the above portrait was taken, "Dr. Kane" was one year and nine months old, and weighed two hundred and fifteen pounds; his fleece, sheared the twelfth of May, weighed eleven pounds; he is pure white, with small, delicately formed, head and legs, yet strong and active. Fine looking, docile, and spirited, he attracted much attention at the Essex agricultural society's show, held in South Danvers, last September—the only time he has ever been publicly exhibited—and won the premium offered by the society for the best buck. Among the competitors for the premium, was a very fine one, recently imported, that received a prize in England, where he had to contend with the best bucks in the Kingdom. "Dr. Kane" was bred by George C. Hitchcock, of Ash Grove, New Preston, Ct., and is the property of Charles Corliss, Poplar Lawn, Haverhill, Mass.

**CURIOUS PEBBLES.**—The San Francisco *Alta California* states that on the ocean beach of Oregon, between Port Orford and Goose Bay, the surf is continually casting up little rows of variegated stones, prettily rounded by the action of the sand and water, and exhibiting all the hues of gems. They average the size of common beans, and are generally transparent, scintillating in the sunlight with the colors of the ruby, the sapphire, the amethyst and the emerald. Sometimes a per-

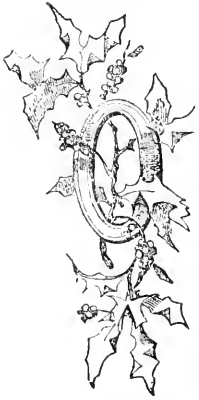
fectly round one is found, of an amber color, and clear as glass. After a heavy gale they may be gathered by the bushel. They are only to be found along a stretch of coast about twenty miles in length. In a glass dish filled with water, and placed where the sun can strike obliquely upon them, they reflect a variety of beautiful rays, and create a miniature rainbow, or a combination of light resembling one, in their effects.

**EFFECTS OF DEW ON ROT AND MILDEW IN THE GRAPE.**—Mr. W. Elder dissents from our views as attached to Mr. Mullet's article. As we have not space for a full discussion of the subject, we give an abstract of Mr. Elder's remarks:

He believes dry air to be the essence of success in grape-growing. Eight by eight feet apart, he thinks best for grapes, so that they may get the benefit of dry air and sunshine. As mildew follows heavy rains after droughts, it shows, he thinks, that it is the damp weather that breeds it. He thinks further, that an over dry atmosphere only injures when some such process as the action of fire occurs about them. He does not believe that the well-known health and exemption from disease of grape vines in trees, arises from partial shade, but, "from there being seldom dews and fogs up there." In short, Mr. Elder has invariably noticed that "mildew and rot always follows a few days of wetness and cloudiness."

We agree with Mr. Elder in regard to the accuracy of the facts he presents; but need not repeat that we draw different conclusions from them.

## TALKS WITH THE FARMERS.



ON Wednesday evening, March 13th, we had the pleasure of meeting the farmers and others of the town of Harvard in council, to consider and discuss the best means of promoting their general interests.—Some years since they had an active association which was continued for a considerable period, during which they had several town exhibitions which were highly creditable to their energy and skill. It is supposed that the influences of this association did much towards introducing some new modes of husbandry, improved implements, better barns and stock, and led many to give more attention to the cultivation of fruit. This item of farm products is of especial consequence to the people of this town, as they have a soil admirably fitted to the apple, pear, peach, grape, blackberry, raspberry, thimbleberry and currant, all of which may be prepared just at night and delivered in Boston market before ten o'clock the next morning; or, by an afternoon train, delivered at night, so that they may be offered for sale as early as sunrise the following morning.

The surface of a considerable portion of the town is hilly, and the soil of granite formation, strong and retentive of manures. These hills are not readily affected by drought, as they store up a vast amount of solar heat in bright days, keeping the soil warm while it is moist, and making them very productive of most New England crops when they are well tended. Thus they are admirably adapted to fruit culture, and furnish some of the best lands in the Commonwealth for the cultivation of the peach. Recently the crop of this delicious fruit has failed all about this region, and in a great measure, also, in the State of New Jersey, and even farther South. We have been informed that one or two persons in this town have each sold from a small portion of land, three to five hundred dollars worth of peaches in a single year! Within two years, however, "the Yellows" has made sad work with the trees, and the crop has been greatly diminished.

The discussion, during most of the evening, was upon the advantages, to the farmer and his family, to be derived from a *systematic association*, for the purpose of *considering, investigating and discussing the varied departments of the business in which they are engaged*. A strong interest was manifested to associate, gather strength, and explore the wide field of labor before them.

We trust that the nucleus for this is formed, and that the lessened labor, increased profits and domestic comforts, which cannot fail to spring from such action, will be equal to the social advancement growing out of such an interchange of practices and opinions.

The hill lands in this town, and of which we have already spoken, are, most of them, stony, being covered with boulders varying in weight from fifty pounds to many tons, so that it is a matter of consequence to the farmer to know what disposition it is best to make of them. It was quite natural, therefore, that, in the course of the discussion, the following question was asked, viz.: "*Is it best to remove stones away from the land upon which they are found, or to bury them so far below the surface as to be out of the way of the plow?*" The principal speaker replied, that no doubts upon this matter embarrassed his mind—it was best to sink them, and for the following reasons:

1. In removing large quantities of stones that are partly imbedded in the soil, the whole surface is sunk in proportion to the quantity removed.
2. This leaves the surface lower, more compact and in a sort of inert or lifeless condition, in which cultivated plants will not flourish.
3. That in removing the stones, a considerable amount of fertilizing matter which they contain is removed with them, such as potash, lime, &c., which is gradually dissolved by atmospheric and other agencies, and is indispensable to the healthy growth of plants.
4. That stones placed at a moderate distance below the surface, become depositories of heat which they give out as the surface is cooled, and they attract the roots of plants by that warmth as well as by the agents of growth which they contain.
5. That they attract moisture. In digging up young trees where stones are found beneath the surface, it is quite common to find these stones surrounded by a net work of fibrous roots, all seeming to embrace them with the certainty of finding food, moisture and warmth. Trees in such localities are usually thrifty and productive.
6. It is cheaper to sink them on the spot than to remove them away from the field.
7. Wherever stones are sunk, the soil and subsoil are thoroughly *trenched*, in performing the work of sinking, an operation of great value to the land, and one which will add materially to its productive power for many years.

Where the boulders are quite large, a good process is to throw the earth out entirely around them to a depth sufficient to receive the whole, then blast, when the pieces will fall over into the hole prepared for them, and are ready to be covered up. If the substratum is very stony, the

process is more expensive, and in some cases would prevent the operation of sinking.

When stones are removed from the field, one of two things must be done—earth hauled in to fill the holes, or they must be filled by plowing in the surrounding soil. When the latter practice is resorted to, the whole surface is lowered, and the field is apt to be left in an uneven condition. If the former course is adopted, carting in so much earth to fill the holes would probably be alone as expensive as the entire cost of sinking and covering them.

A few evening since, we met a large collection of the people at Stirling, when the time, from a little past seven until ten o'clock, was occupied in a review of the topics which had been under discussion by the Farmers' Club during several of their former meetings. An unusual number of young men were present, and a deep interest was manifested to progress in the noble art in which they are engaged. The farmers here sustain a *Town Exhibition*, which we have been told by those who witnessed it last fall, exceeded the county show in nearly all its departments. This spirit will soon give a new face to the country, as well as to the domestic condition and intelligence of the family.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The tenth meeting of the Legislative Agricultural Society was held in the Representatives' Hall, on Monday evening. The attendance was good, and there was considerable interest manifested in the discussion, the subject being "*Fruits and Fruit Culture.*"

Col. MARSHALL P. WILDER presided, and announcing the subject for discussion, said that he had so often spoken in the Representatives' Hall and other places on the same subject as was proposed, that he had very little of what would be considered new to offer. His health was not so good as usual, and he must, therefore, be excused from saying much. He stated that in the selection of fruit trees in our climate particular attention should be paid to those varieties that were hardy, and would withstand the changes and extremes to which we were liable in our latitude. In the Middle States climate was not so variable, and there some varieties might be cultivated to advantage that we cannot expect to do well with. A great number of foreign varieties have been imported from abroad, but in consequence of this variability in our climate the greater portion of them have failed, and to show how many are unsuited to our climate, Mr. Wilder said that within thirty years, of over 800 varieties he had tested, it would be hard to select 100 that were desirable for us. This, said he, is not

alone peculiar to our own region, as with all the wisdom of the National Association, comprised of men from all parts of the country, of the thirty-six varieties of apples recommended for general cultivation, all but five are native, while of the fourteen varieties of plums, all but four are native, and all the varieties of strawberries are of native origin.

The speaker gave it as his firm conviction that for our greatest pomological success we must look to native seedlings raised on our own soil and specially adapted to it. He then spoke of the efforts made to disseminate the knowledge of the various kinds of good fruit, and particularly of those of the National Society and our own State Board of Agriculture, both of which were preparing catalogues containing the best varieties, with the soil and location each requires, and these he considered would be of great value to all. He then mentioned several varieties of native apples and pears of superior quality and flavor, greatly excelling the foreign kinds, and spoke of the efforts in cultivating the native varieties made by Mr. Dana, of Roxbury, who had raised six or eight varieties of pears, and had raised one variety nearly equal to the Seckel. Mr. Richardson, of Dorchester, had also been particularly active in this direction, as had also Mr. Clapp, of the same town, the latter having raised twenty-five varieties of seedling pears, all very good, some excellent, and one, the Bartlett, which rivalled, and he thought excelled the old pear in beauty and quality.

He had spoken so often and said so much of the importance of thorough draining to the successful pursuit of fruit-raising that he thought he ought not to allude to it now, but as he considered this, and the complete preparation of the soil, the two points on which success almost entirely depended, it would be well to dwell a moment on them. The land for the orchard should always be well worked and thoroughly drained before a tree is planted, and as this was an inflexible rule, no new orchard should be commenced without it was done. He knew the difficulty of convincing an inexperienced farmer that a side hill needed draining, but this was the coldest soil we had. The surface water, said the speaker, is not what makes the land cold, as this will evaporate or can be easily conducted off, but it is the cold water, from the springs originating on the hills, that permeates the soil and keeps it cold and wet, thus checking the growth of trees and preventing the ripening of fruit, and to this he attributed the spotting of the leaves, the cracking of the fruit and bark, and the difficulty in properly ripening the fruit.

The influence of the soil, he thought, should be particularly considered by all who purpose



raising fruit, as many varieties will succeed in any good soil, while others require a light, feathery soil, and will thrive in no other. He condemned the practice of buying trees at auction merely because they had favorite names, and he did not wonder that persons who planted such trees were unfortunate with them. Every man wishing to raise good fruit should select with care, and paying attention to his land, he would find that the influence of the soil would much affect the flavor and beauty of the fruit.

Again, said Col. Wilder, more attention should be paid to the location and aspect of fruit trees, and he thought that on this point many made mistakes in planting the early varieties on the warm and genial soils, whereas the late varieties should have those spots, so as to ripen before the cold nights came on, and the early kinds would ripen just as well from the general heat of the atmosphere, without direct exposure to the sun.

Col. Wilder said, in closing, that our greatest success must depend on fruit cultivated from seed suited to our own soil, and he would encourage this as much as he could, so as to have our fruits, like our people, suited to the position they occupy. There was no higher ambition a man should aspire to, as he thought the man who raised good fruit was a benefactor to his race.

ASA G. SHELDON, of Wilmington, said that he had not much experience in fruit raising generally, but had devoted his attention to raising apples. On the first day of April, 1841, he set out his fruit trees, 158 in number, and his neighbors tried to discourage him from doing so, telling him that he could never succeed on such soil, but he had paid little attention to this, and had continued to set more or less out each year until within the past two years; he had now 1200 trees, and had sold land on which were some 300 more. He said there was so much sand under the soil of his town that it drained the land without tiles. He raised Baldwins, principally, as he thought they paid as well as any other variety, yielding well and selling well, even when apples were plentiful. While he would not recommend a person commencing a large orchard to plant all Baldwins, he would have him get a good proportion of that excellent apple.

He said that 10 of his best trees, which are 20 years old, yielded last year 80 barrels of excellent apples. In the matter of trimming trees he would have a person try a tree each month in the year, and then he would learn from experience the best time to prune. He had found that the best time was from August 15th to September 15th. If, said he, you cut a large limb in July the sap is active, and runs down the tree, and staining the bark, is very apt to kill the tree. If a man had neglected to trim his trees last fall, he would re-

commend him to do it to-morrow, but he never cut a tree after the blows were off, as it would invariably injure it. He had had very little experience in pear culture, but he thought it would pay well.

Mr. SPARHAWK, of Brighton, said that a common fault among cultivators was in cutting off the tap root in transplanting young fruit trees; this root, said he, removes the excrementitious matter, and on being cut off, checks the growth of the tree, and this is plainly seen in the grafts on wild trees, which are found to grow much larger than on trees transplanted from the nursery. He spoke of trees in Brighton 30 feet high which yielded 15 or 16 barrels of apples each year.

In relation to pruning trees, he said that when a man raised his own trees he need not use a saw for five years, and then he considered that if properly attended to he could control their growth with the simple use of the jackknife, and this was specially the case with pear trees. Apple trees require some pruning, particularly when from 15 to 18 years old. He said he would never prune a tree in the spring, nor in June or July, as then the sap was too lively; any time after this he thought was safe, but in no case would he ever cut off a limb over an inch in diameter without protecting it, no matter at what time of the year. He spoke of mice gnawing the bark of fruit trees, and said that he remedied this injury by applying the same composition he would to the cut limbs, namely rosin dissolved in oil; and to neutralize the oil he stirred in whiting and lamp-black. This, he said, excluded the air, and enabled the bark to grow underneath, while from the soft nature of the composition the sap would not be checked in its passage from the roots to the tree. Shellac would not do this, and he thought his composition was excellent.

Speaking of the profits of pear raising, Mr. Sparhawk said that his father had two trees on his estate in Brighton, which had been set out 20 years, and he had been in the habit for some years of selling the pears on the trees to a Mr. Gordon, one being a Bartlett and the other a Seckel, and he had received \$40 each for their product last year, and about the same amount for previous years, the product of each tree being about the same in quantity.

Col. STONE, of Dedham, said that reference had been made to the orchard of Mr. Clapp, in Dorchester, by the Chairman, and he had procured a statement of Mr. Clapp's receipts last year from him, which he would read to the meeting. Mr. Clapp's orchard embraces 12 acres, but an acre and a half of this was planted with young trees just coming into bearing. He sold last year 875 bushels of currants for \$1763; 950 barrels of apples for \$1575; 480 bushels of peaches

for \$1280; 68 bushels of pears for \$178; 50 barrels of cider for \$100, and currant plants sold for \$120. The whole amounting to \$5016. Then there should be added to this the value of fruits used in two large families, which the speaker said should be estimated at \$150, and premiums received by Mr. Clapp during the year for fruits exhibited, amounting to \$64; making the product of his orchard for last year to be worth \$5230.

The speaker said that Mr. Clapp considered the Gravenstein the most profitable apple, and the Williams the next. He kept his trees well pruned, and generally pruned in the months of March and April before the swelling of the bud. The soil of his orchard was black and yellow loam, with a gravelly subsoil well drained, and this draining the speaker thought was the greatest element in his success. Mr. Clapp, said he, plants his currants in rows six feet apart, and applies manure in the fall, preferring well rotted and composted stable and barn manures. He thinks currants do better in the shade if not too dense, as so planted the bush does not shed its leaf so early. He uses the rooted slips. Col. Stone said that Mr. Clapp did not retail his fruit, but had the advantage of being near the market. He raised his currants under his apple trees, and by attending to his currants he favored his apples. The seedling that Mr. Clapp had produced from the Bartlett, Col. Stone considered far superior to the original pear, and he thought it would be of immense benefit, as there was always trouble in transplanting the Bartlett trees. He thought there was no more difficulty in raising pears than apples if moderate care was used, and he closed his remarks by warning persons setting out trees not to set them too low, as it was better to have them two inches too high than one too low.

Mr. FRAZIER, of Watertown, said he had an orchard which for a few years past had not been productive, and although the trees grew, the fruit did not. His neighbors had advised him to cut half the trees down, on the ground that they were too crowded, but he scarcely liked to do this, and he came to the meeting for information. Last fall he cut down a Baldwin tree, and it was perfectly sound, and it was so fine a tree that he could not cut down any more. He wished to know whether the bark bursting on the trunk and large limbs was caused by a defect at the root. His trees were 18 years old, and his land had been in grass five years.

The Chairman said that the land of Mr. Clapp previously referred to was exceedingly fertile, and the trees very large, the limbs interlacing each other. The trees, he thought, were 30 or 35 feet apart. He would recommend Mr. Frazier to plow his orchard with a light plow, and manure the surface, and he would predict a full crop.

Mr. SHELDON being called on, said that, when first he commenced planting, he put his trees 35 feet apart, then 30 feet, and latterly 25 feet, and he did not think this too close. He thought from what he had heard that Mr. Frazier's trees grew too fast, but he was sure that if he cut down half of them he would not get as many apples as he now does. His experience showed him that apples ripened earlier when the trees were planted close. He had noticed that apples did not keep so well as usual this year, and he attributed this to the extreme cold nights we had in September and October. The Red Astrachan apple, the speaker said, had been more profitable to him than any other variety.

Mr. WETHERELL, of Boston, had heard of the same trouble in Illinois that Mr. Frazier had, and a friend of his in western Massachusetts had also been troubled. In the latter case slacked lime was applied, and with effect. He would recommend this, or manure and ashes, as a remedy for the difficulty. In the matter of pruning, he said he never cut off the large limb of a tree, as he should consider it would be the death of it, and he called attention to the continual sawing of the trees on our Common as a proof of the assertion. Pruning too much, he insisted, was worse than not pruning at all.

The Chairman said that he agreed with the views now expressed by the previous speaker, and he thought that the pruning of a tree should be conducted on the same principle as the education of a child, begin early and proceed cautiously. If pruning were done carefully, nothing larger than a jack-knife need ever be used. He would apply composition on every limb cut off larger than his thumb, as the air should in all cases be excluded. He approved of pruning when the trees were dormant, and his men had pruned more than a thousand last month, and would continue pruning until the sap ran.

Mr. SPARHAWK had seen Mr. Frazier's orchard and he thought it had been neglected, although it had been well laid out. He would preserve every tree in the orchard, as he considered with proper care they would be worth \$100 each. He would have an experienced pruner go to work in August or September, and carefully prune the trees so as to let the light and air get to the roots, as he considered this as essential to the development of them as almost anything else. He said Mr. Frazier's orchard was on a side hill, and he would recommend him to put in tile drain, and then put on a compost with unleached ashes.

Mr. BANCROFT, of Salem, said he came to the meeting to ascertain what he should do with his land. Col. Stone had said that an orchard should not be seeded down, and he had land planted with fruit trees which he had cultivated two years,

and now he was compelled to lay the land down, and he wanted to know what it was best to sow. A deceased friend of his from whom he had often derived excellent information, had a thrifty growth of young trees, and he had sowed his land with barley and it had killed the trees, and he wished to know whether this would have the same effect on his trees. He had been told that barley, oats, rye, or any of the cereals, were ruinous to an orchard, and he was in a quandary. He did not think the fruit-raisers around Boston needed so much information as the broad acre farmers of the Commonwealth, to give more attention to the raising of fruit, and this auxiliary to the cultivation of their land.

The Chairman said that if he was obliged to seed land down situated as Mr. Bancroft was, he would take the trees from it, as without extraordinary cultivation he could not get a double crop from the same land. The only case he knew where this had been done was that of Mr. Pell, of New York, who grows wheat with his fruit trees, and this he removes in July or August, and manures specially for each crop.

Mr. HOWARD, editor of the *Cultivator*, also spoke of the fact of Mr. Pell growing wheat in his orchard, and said that his apple trees were young, and he manured for both wheat and his trees. Mr. Pell had been eminently successful in the growth of the Newtown Pippin.

Col. STONE did not like seeding orchard land down, but if he must do it, he would sow oats and cut them down when a few inches high, and let them remain on the land.

It having been announced that the subject for discussion would be "*Root Crops, and their cultivation in Massachusetts*," when CHARLES L. FLINT, Esq., Secretary of the Board of Agriculture will preside, the meeting adjourned.

#### SHOULD WE WASH OUR SHEEP?

Humanity, at least, says *No!* With the natural fear a sheep has for water, it must be cruel to subject them to such treatment as they sometimes get by the process familiarly called "washing;" yet, in truth, it is not only a detriment to the wool, but to the sheep.

We take it for granted, that what is good for the health of man in the way of care, holds good with the sheep; and who among all our shepherds would think of following his sheep home from the mill pond, without a change of clothes, when sometimes it is cold enough to make his teeth chatter. How can we then expect it to benefit our sheep, especially when we have a week's rainy weather just after washing, and very often, in this climate, it is cold and unhealthy for man and beast. Yet some will say it does the sheep no harm; but facts prove that this is not the case—both your sheep and lambs suffer materially.

But this is only one feature. *It costs a great deal of time and money*, which could be applied to

a better use in cultivating our spring crop. It is no trifle to wash 3,000 sheep every year.

But the most potent argument in favor of not washing our sheep is, we can shear from three to four weeks sooner, and thus give the more time after shearing for the growth of wool, to protect them from the fall rains and from the cold in winter, which is no inconsiderable item. How often do we delay washing on account of the water being too cold, when the weather is abundantly warm to shear. The sheep will not suffer with the cold in May, if they are cared for during the three days immediately after shearing. We would gain one-sixth more clothing, to protect our sheep from the cold of winter, besides a stronger constitution and a healthier sheep, than if we had frozen our sheep in May, by washing them.

Finally, *manufacturers would rather have the wool unwashed*. They have to re-wash it after us; why not let them do their own washing, and then if it is not well done, they will know who to complain of. One-half of the wool in some sections of country where they have no clear running water, is actually damaged by the attempt to wash it on the back. It is made a bug-bear of in market, and thus the producer is forced to take less than his wool is really worth. Wool-growers! we stand in our own light upon this subject. But taking unwashed wool to market cannot be practiced by one here and there. It must be a general reform. How then shall we best and most directly get at it? It can be done by "Country Organizations." Shall we make the attempt? By so doing we shall practice humanity, save labor, save time and money, improve our sheep, benefit ourselves, and benefit the manufacturer. —*Cor. Ohio Farmer.*

*For the New England Farmer.*

#### EXPERIMENT WITH POTATOES.

MR. EDITOR:—There has been much of late in the *Farmer* respecting the potato disease; also upon the chemical preparation of Mr. Lyman Reed, of Baltimore, the efficacy of which has been tested by actual experiment upon our farm, two years ago this coming season.

Mr. Daniel Reed, brother of Mr. Lyman Reed, gave notice that he would prepare seed potatoes for the farmers here for fifty cents per bushel, his brother having sent him some of the preparation. Thinking that it might be the means of saving the crop of potatoes, I had two bushels prepared; one of Eastports and one of Davis Seedlings. At least, I thought it worth a dollar to know whether or not there was any good to be derived from it. The potatoes were kept in a warm room till they were well sprouted, then put into the liquid, which killed the sprouts, and made the tubers look withered as though they were a year old. To give it a fair trial I planted those that had been prepared side by side with those of the same variety that were not prepared, the manure and culture being the same with each. Eighteen per cent. of those that were prepared never came up at all, and the rest not till a fortnight after the unprepared. They continued to be two weeks behind the others all the season, and when we dug them the unprepared ones were much the larger and nicer potatoes.

Mr. Reed called two or three times during the season to examine the crops, and noticed the same difference in the tops which I did. He was also present at the digging of them. When we dug them, we were careful to count the number of hills which it took for each bushel, and likewise the number of diseased potatoes in each. The result was as follows :

## EASTPORTS.

From 1 bushel of seed prepared I dug 8 bushels; the average number of hills to the bushel 39½, average number of diseased tubers to the bushel 20¾. From 1 bushel unprepared I dug 10 bushels; average number of hills to the bushel 40.6-10; average number of diseased ones to the bushel 10.

## DAVIS SEEDLING.

| PREPARED.   |          |                   |                |
|-------------|----------|-------------------|----------------|
| Seed.       | Yield.   | Av. No. of Hills. | Diseased Ones. |
| 1 bush.     | 13 bush. | 22½               | 23             |
| UNPREPARED. |          |                   |                |
| ½ bush.     | 8 bush.  | 15                | 22             |

It will be seen by the result that the preparation had not the desired effect of preventing the disease, and consequently was a failure. I have furnished you with the result of this experiment that others may learn wisdom. From this I draw the conclusion that all the patents got up to prevent potato rot are humbugs. However, I should like to learn the experience of other farmers in this matter as well as many others, for it is by such experiences that we are to get knowledge in farming as well as in other things. I think it is the duty of all farmers to lay before the public the results of all such experiments for the benefit of their brother farmers. Being a young farmer myself, I like to learn from the experience of others.

C. H. CUMINGS.

Harvard, Mass., March 7, 1861.

For the New England Farmer.

## ECONOMY IN USE OF ROOT CUTTERS.

MESSEURS. EDITORS:—I have often noticed in the *Farmer* communications in regard to the best way to relieve cattle that were choked, and as often wondered at the "folly of sinners," and queried why it was that farmers, feeding out from 25 to 500 bushels of potatoes, carrots or turnips annually, and almost yearly losing or having injured by choking one or more creatures, besides considerable expense in attending upon them, were so slow to learn that there is a better way. They will cut their coarse fodder, and many of them their hay; paying for a machine with which to do it from \$10 to \$25; they will have their provender for horses, cattle, hogs and poultry, ground at an expense of about one-tenth part, and many will in addition cook it before feeding out; and yet they will feed out their potatoes, carrots, turnips, &c., whole, "dirt and all," or perhaps will give them a little hacking with an old axe or shovel!

The vegetable cutters in market cost only about \$10 each, and I have never heard of any creatures being choked by eating vegetables cut by any kind of cutting machine, though undoubtedly there is a preference in the machines. It is but a few years since vegetables, except potatoes, have been raised considerably hereabouts for feed-

ing to stock; but yet, there are now five kinds of root cutters here, and any of them better than none, and a sure remedy for choking cattle.

It is but a few days since I heard a very enterprising and thrifty young farmer, (who this past season raised 300 bushels wheat, 700 bushels oats, with corn, potatoes, turnips and &c., to match,) say that he had no doubt that there had been loss enough, by cattle choking in this town within fifty years, to supply the whole town with root cutters for a hundred years. Some two years since, I received a letter from a gentleman in western New York, in which he mentioned that he had the day before lost his best cow out of a lot of twelve, by being choked while eating turnips cut with a shovel; and that just about a year previous he lost one in the same way; and there was scarcely one of his neighbors who had not lost one or more in a similar manner; and he added, "Now I am going to have a root cutter, if I can get one this side of Jordan," and wished my advice as to kind.

Of the kinds of root cutters in use in this vicinity, two of them leave the roots in rectangular shaped pieces, superior only to those cut with a shovel, in that they are generally smaller, and cut with greater facility. One kind cuts them in gouge-shaped bits, about three-fourths an inch wide, and one-fourth in thickness, and quite rapidly; I think about a bushel per minute, if forced a little. The other kinds are used chiefly, and preferred because they not only cut, but clean the roots; they also leave them in thinner and more pliable shape, better to be mixed with meal, grain or "cut feed," cutting also equally fast. It is astonishing to see what an amount of dirt may be taken off from apparently clean roots, without water, too. From actual experiment, in hundreds of instances, in this town, it has been ascertained that these vegetables have adhering to them as they are brought from the cellar, from one to two quarts of dirt to every bushel, most of which is necessarily eaten, when fed in the ordinary way, without cleaning. Now, besides the great injury, both medicinal and mechanical, to teeth, stomach and bowels, caused by so much dirt, there is no doubt that dirty vegetables are more likely to stick in the throat than clean ones.

The construction of this machine is very simple and durable, the cleansing part, consisting of a revolving cylinder so arranged that the dirt falls out on one side, and the vegetables are dropped from the other into the hopper, from whence they are cut by semi-conical shaped knives upon a conical shaped, hollow cylinder, through which they fall by a spout into a basket.

This last machine has not been in the city markets, I believe, for which reason I thought it might be neighborly to describe it more particularly, and the invention, I think, has been secured by a resident of this county.

Now, brother farmers, don't be so cruel and foolish as to let your cattle choke, and then run broom handles, forked sticks, et cetera, down their throats, or rack your brains to find some other way to get out the obstruction. Be wise enough not to let it get in there, and if you do not grate your roots before feeding, as is done in European countries, do for mercy's sake cut them up in respectable shape, and this will also enhance their value and useful effects, as much as

you do your fodder by cutting, or your grain by grinding. Is it not so, Mr. Editor? And what think you of making stock eat a couple of quarts or so of dirt with every bushel of roots? And will not vegetables, cleaned and cut into strips one-eighth inch thick, cook, if desired, with one-fourth the cost for fuel required for whole ones, besides making much better feed for the cleaning?  
R—, *Vt.*, 1861.

BULBOUS.

## EXTRACTS AND REPLIES.

## WHEAT FERTILIZER TO USE.

I wish to inquire in regard to advertised fertilizers. I have a piece of land that has been cultivated two or three years, and is in good condition. Although of rather a clayey soil, yet it is good for corn. Thinking I could use some advertised fertilizers to profit, I wish to inquire which is the best for such kinds of land? Among the best recommended is Coe's superphosphate of lime; do you know anything of its merits?

Northampton, 1861.

A SUBSCRIBER.

REMARKS.—We cannot tell you what the best "advertised fertilizer" is. Some that have proved quite successful with us, have given little satisfaction to others, so that we dare not commend any one of them in preference to other kinds. So much depends upon soil, manner and time of using, &c., that the results will be widely variable when precisely the same article is used in different localities. You must experiment in a small way for yourself, and gather the opinions of others as they are incidentally given.

## GRAIN FOR SHEEP.

Will oats hurt sheep to feed to them without being ground? It is said by our farmers here that they have lost a number by the use of them. What kind of grain is best to give them?

Henriker, March, 1861.

N. M.

REMARKS.—Will some of our farmers give you, or us, the reasons why unground oats will hurt sheep? It is a new doctrine to us, and we cannot credit it upon a mere assertion. Fed in proper quantities, we believe them admirably adapted to sheep, and have been informed by some of the most successful sheep growers in Vermont that they are in the constant practice of using them for sheep. Corn and beans are excellent—better ground than unground—but all grain must be fed to sheep judiciously.

## A FINE HOG.

A. J. Spalding, 2d, has raised a very fine hog this past season, which I think is worthy of notice. It had rather ordinary keeping, and yet, at the age of 21 months, it was killed and weighed 640 lbs. And what is best in regard to it, the pork is of a very fine quality, suitable for family use. It was sold to Mr. Elliot, a noted provision dealer in Salem, and placed by the side of Mr. Rogers' great hog of South Danvers. I think those that raise large hogs should make correct statements in regard to age, &c, and not say that

a hog is two years old, when in reality it is nearer four years.

P. W.

Danvers, March, 1861.

## TO RELIEVE CHOKED CATTLE.

Quite a variety of ways have already been pointed out in your paper for relieving choked cattle, some of which I doubt not are safe and sure. But as cattle continue to get choked under circumstances which do not always admit of the same remedies, it may be well that the community should be informed of all the different methods by which the evils may be removed. One method I happened to have knowledge of, which I have not yet seen noticed. If you think proper, please insert it.

When I was a boy, probably about ten years old, my father had an ox that got choked, I think with a potato; to save him he must have speedy relief. It was done in this way. He was put in his usual place in the stall; my father on his left side took him by the horn with his right hand, and with his left grasped his tongue and drew it out by the side of his mouth and held it fast; an older brother helping on the other side to keep his head steady, I was then told to pull my shirt sleeve up to the shoulder and thrust my hand down his throat, and take out the potato. I said he would bite me. No, my father said, he could not, for his tongue was between his teeth. I then thrust down my arm the whole length—got hold of the potato, and removed it in less than a moment, and all was well.

## AN EARLY SPRING.

A letter just received from Tuskegee, Alabama, dated March 7, says, "We are planting here."

Another from Emporia, Kansas, dated March 4, says, "We have now every indication of an early spring. Grass is springing up, and everything looks hopeful. On the 2d inst. I brought in to Mrs. M. the first flower."

W. J.

Monadnoc, No. 4.

## ADVERTISING FARMS FOR SALE.

Allow me to call the attention of that class of your patrons who are about to advertise "Farms for Sale," to the fact that it will forward their wishes, as well as be of great assistance to applicants, to give a description of the place for sale, and, what is very important, the price desired.

Some places are represented as cheap, others, to inquire of some one sixty or a hundred miles away. It is true, we can correspond to ascertain particulars, but in nine cases out of ten, if the description and the price suited those in want, they would take pains to go in person and view the premises. A friend of mine, last spring, travelled some two hundred miles to see a place advertised as cheap, and ascertained that the price was \$4000, when his finances would not permit him to invest over \$2500.

Boston, March, 1861.

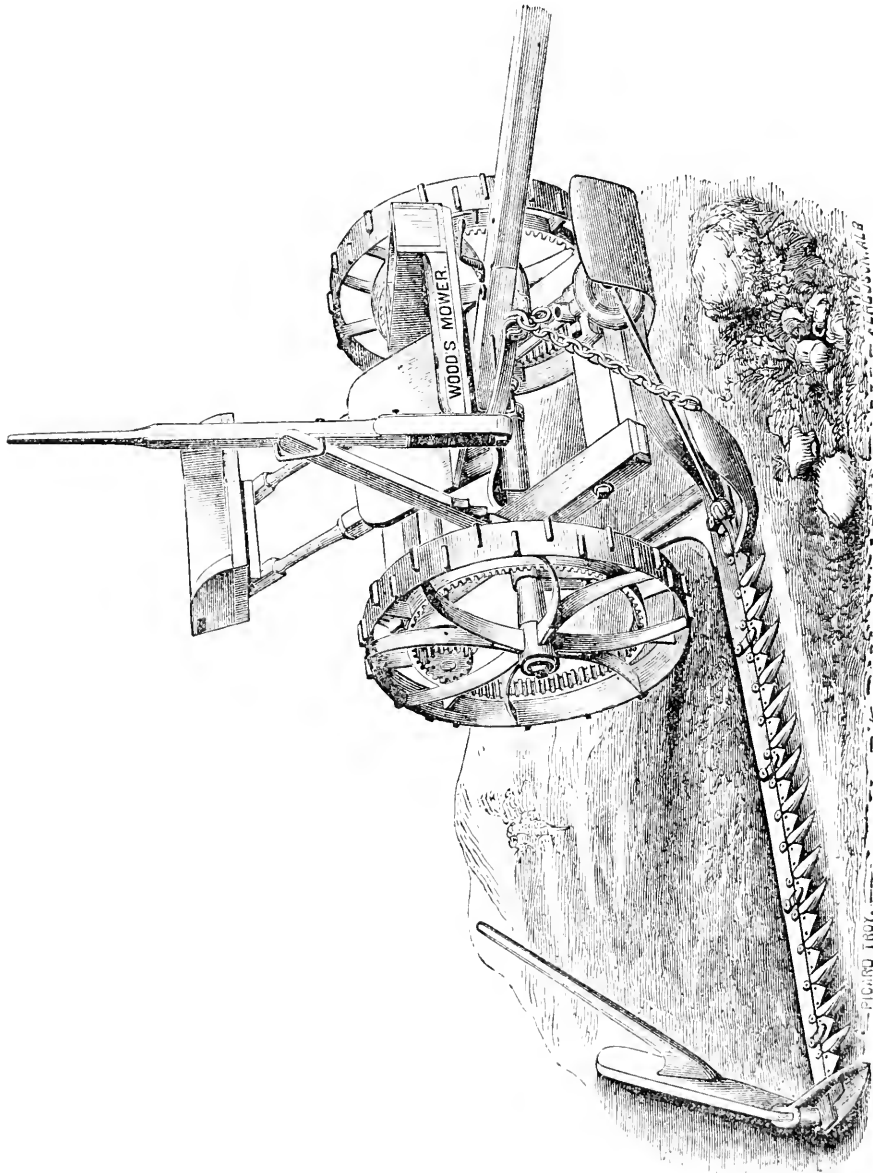
A SUBSCRIBER.

"A SUBSCRIBER'S WIFE," is informed that we do not know the person for whom she inquires. His article was copied as one of general interest. We suppose good seeds such as she wants may be procured at the seed stores.

**WOOD'S IMPROVED MOWING MACHINE.**

We have seen this machine do excellent work, and have heard it highly spoken of by those who use it upon their farms. Its success during the harvest of 1859 was very satisfactory to many persons. Over thirty-four hundred of them, we are told, have been sold and successfully used

within two years. Many farmers speak enthusiastically of their light draft, and perfect cutting, and a large number were put into the market from a full faith that the true mechanical and practical principles in constructing a Mowing Machine had been attained. The manufacturers claim that a Mowing Machine has been produced



of lighter draft, and can be afforded to the farmer at a less price than any heretofore in use, and at the same time be light, durable, and do perfect work—and that it will cut a more perfect swath than any other Mower, and do it with one-quarter less power. The usual number of knives fur-

nished with a machine is two; the necessity for keeping the knives sharp requires that there should be three; this will enable the farmer to work through the forenoon without stopping to sharpen his knives, and after sharpening at noon, to finish the day's work without interruption.

The two-horse Machines weigh 51½ pounds each, run on two driving-wheels placed 30 inches apart, each wheel 28 inches in diameter. The frame rests upon and is firmly secured to the axle of the wheels, and supports the gearing and a seat for the driver. The finger-bar is attached to the Machine by one bolt, and can be easily removed by taking off one nut; and when placed upon the frame under the seat, the Machine can be driven from field to field as easily as a light cart. The knife is driven by a crank-pin, projecting from a well-adjusted balance-wheel, which gives it a steady, uniform motion; it has a rapid motion with a short stroke, which enables the Machine to do good work when the team moves as slow as horses or oxen can walk. These Machines can be easily and instantly thrown out of gear, thereby giving motion to the driving wheels only when mowing. They cut a swath four feet wide.

The one-horse Machine is constructed on the same plan, and in the same manner in all respects, as the two-horse Machine, except that it has shafts instead of a pole, weighs 50 pounds less, (46½ pounds,) and cuts a swath three and a half feet wide.

#### LAMPAS IN HORSES.

A correspondent of the *Mark Lane Express* writes how a cure of this disease was effected by homœopathic treatment, in the case of a valuable carriage horse:

The animal had been suffering from the disease for sometime before the servant mentioned that it was ailing. An allopathic veterinary surgeon, who was consulted, declared that *it was impossible to remove the diseased part except by cutting and burning*. This we refused to permit, and began to treat it with homœopathic remedies, but, owing to our want of skill, without any success; the horse became daily worse; the palate and gums were so swollen as to prevent the power of mastication, and were like a white sponge. In this emergency we took the liberty of consulting a clever homœopathic M. D., who advised us to try RHUS TOXICODENDRON A, five drops in half-a-pint of water, twice a day. In sixteen hours from the first dose, there was an improvement in the color of the gums and palate. The following day the swelling began to subside, and in seven days the creature was quite well, and has never since that time (a period of two years and a half) had any recurrence of the ailment.

CLUBBING OF CABBAGES.—A handful of superphosphate and a tablespoonful of McDougall's disinfecting powder, put into each hill of some 1500 cabbages belonging to a correspondent of the *Philadelphia Farmer and Gardener*, saved all but about twenty, which probably missed their portion of phosphate and powder.

*For the New England Farmer.*

#### FARM IN CONN. RIVER VALLEY.

MR. EDITOR:—I am a young farmer living in the Connecticut valley, near Mounts Tom and Holyoke; have long been interested in your valuable paper, and gleaned therefrom much instruction of great value in my daily occupations: I read from week to week with great interest its agricultural and scientific discussions: together with the reports of the weekly Legislative agricultural meeting, and market reports. Since I have been engaged in farming, I have often looked in vain for contributions from "tillers of the soil" in this section of the country. As our farming in the alluvial soil is quite different from that in most parts of the State, a little good advice is what we need, and should appreciate. For the benefit, perhaps, of some who have never become familiar with this section, I will name some of these differences. The farms are generally small, but often large barns may be seen well filled, showing that a few acres, well tended, are much more profitable than many half cared for. \$200 per acre is about the average price for land. We have no pastures, therefore cows are mostly kept in stables, fed on cut feed, and for a change, on green food in Summer. We have no top-dressing to do for our mowing, that is all done on the low lands by the Connecticut river, avoiding thereby all discussions as to which season is the best for these deposits.

There is a great advantage derived from having the land scattered in small lots, as each farmer has thus several different kinds of soil to deal with, enabling him to raise different kinds of crops to good advantage; the principal of which are broom-corn, tobacco, corn, potatoes, wheat, rye, oats, barley; to these we hope soon to add flax.

We "Young America," believe in plowing deep; "our fathers" tell us to "let the plow run lightly," but I think they acknowledge the benefit derived from deep plowing in case of drought or a dry season. Many have experimented upon lots, in plowing under green clover and rye in the spring, and in the fall broom-corn, stalks and buckwheat. I would like to assure you, in closing, that if your attempts to give us, weekly, an accurate account of beef markets are successful, your reward from this vicinity will be in obtaining not a few subscribers. In this important reform, we all bid you "good speed."

I would like your opinion in regard to plowing under clover in June for tobacco; as it is then tall, rank and green, I imagine it injures the present crop. Would it not be better to mow it, and let it wilt? YOUNG FARMER.

*Northampton, Feb., 1861.*

REMARKS.—We have been told by chemists that if clover is plowed under when green, that as soon as it begins to ferment it throws off its starch and sugar in the form of gas, and these fertilizing properties are lost. Others do not deny the fact that these valuable properties are transformed into gases and pass off, but that the gases are retained in, and absorbed by the soil, and that nothing valuable is lost. You must look into the matter more thoroughly for yourself.

*For the New England Farmer.*

### SHOULD NEW ENGLAND FARMERS TO RAISE THEIR OWN BREAD?

This, Mr. Editor, is an important question, and one calling for a candid consideration from every farmer. Of course, I do not include as farmers those who are engaged in market-gardening, or making milk for city or village use. Every man is presumed to know his own business better than those not familiar with all its details—yet most, if not all, in every occupation, may be at times set to thinking by some suggestion cast in their way by others who would not aspire to be their teachers. For this purpose I ask the question at the head of this article, hoping many will give it sufficient attention to see if it cannot be answered in the affirmative in their case. I am fully assured that all cannot profitably raise wheat on their lands, yet still fully satisfied that as a general thing it is possible, and can be done profitably as compared with other crops. I suppose it is true, that the past two years have been very good for wheat growing, and that it will not answer for us to expect like crops in coming years: still, there is ample testimony to show that in a series of years, uniform success has been the result.

For the encouragement of those who are disposed to see what can be done by trial, I will cite a few instances of success that have come to my knowledge. James Le Barron, of Mattapoisett, in '59, raised two acres that threshed out fifty bushels. This past season's crop promised equally well when I saw it. I have not learned the amount threshed out. A neighbor of his had a field along side, which was much better, and I judged would turn thirty bushels to the acre, and several around this region have been equally successful. I was in Little Compton, R. I., recently, and learned that several of the prominent farmers in that garden of New England had raised large crops of wheat, or rather obtained a great yield per acre; John and Levy Sisson, getting thirty-five bushels, and their brother, Daniel Sisson, from two acres, obtaining eighty-eight bushels. The straw was put into the hay-press, and baled and sold in Providence for fourteen dollars a ton, which I should judge must have paid all the incidental expenses of raising the crop. The last named individual purposes sowing eleven acres this spring. The seed used by the above men is called Japanese spring wheat.

I doubt if fall sowing, as a general thing, would succeed, when, as with us on the coast, so little snow is to be relied upon to cover it from frost, and save from winter-killing. All clay lands should be avoided for fall sowing, unless well covered with straw, or what is still better, where it can be obtained, sea-weed.\*

From the published testimony of many, I should judge that wheat should be soaked in strong brine previous to sowing, and either ashes or plaster sifted over it while wet. In many instances this preparation has increased the product twenty per cent. I trust the day is not distant, when we farmers of New England will find that, after all that has been said about our dependence upon what is termed the grain-growing States, we

\* NOTE BY THE EDITOR.—Thorough draining will probably accomplish more than any thing else in preventing the winter-killing of wheat.

cannot only raise our bread, but get more of it from an equal surface, and reap a larger profit than they can possibly do, so far from a market, that consumes it. In many localities the want of suitable mills for farmers to have their wheat made into good family flour is a serious evil, but one that will soon disappear, when wheat raising has become a fixed fact. The mills will surely be provided. No law is so sure as that supply quickly treads upon the heels of a demand.

I ask again, who of our New England farmers will raise their own bread, this very year?

*Rochester, March 16, 1861. JOSEPH COE.*

*For the New England Farmer.*

### PULVERIZATION OF MANURES.

This is a subject in which I heartily agree with "M. F.," in saying that its importance demands a more thorough attention. I am aware that the former practice of manuring in the hill is fast being superseded by the application of manure broadcast, and therefore the most strict attention should be given to the pulverization of the manure thus applied. The evenness of spreading on the surface is very essential, that the roots of the plants may partake of the manure equally, and thus promote a more even growth through the field. The beauty of a crop is evenness and equality in its growth. I have often heard the remark, "I wonder what makes that corn so uneven." I think if they should pay more attention to the pulverization of the manure, and evenness of spreading, so that the roots of the plants may readily take up the manure, that they would have no occasion to ask, or wonder why one plant does not grow so rapidly as another. This is a subject which has been greatly neglected by the majority of our farmers. Often do we notice newly-seeded pieces, which are striking evidences of the manner in which the manure was applied. My mode of management is as follows:

Three or four days before I want to use a quantity of manure, I fork it up into a heap, occasionally applying plaster as an absorbent and pulverizer, at the same time taking care to break to pieces the largest lumps. After two days, fork over again and cover with plaster, and at the end of the fourth day, the manure will be in prime condition to cart out, and apply broadcast, and if sheep manure (as the most of mine is), you will need a shovel to spread it. Great care should be taken not to let it remain too long in the heap, as it will burn, and thus destroy the life of the manure.

*Hatfield, March 11, 1861.*

J. E. W.

CORN AND COB MEAL.—It is suggested by the *Homestead* that there is something peculiar, and in some cases injurious, in the action of this food upon animals, being strongly constipating, &c. On the presumption that cobs "in a natural state," are not food, it is suggested by the writer that "Cases are rare where products, which in a natural state cannot be used as food, have any considerable value when artificially made eatable." But is this assumption correct? Green cobs are



relished by swine and cattle; even dry, last year's cobs were eaten greedily by a cow of ours! Who can account for tastes?

*For the New England Farmer.*

#### MACHINES FOR PEELING WILLOWS, AND WRINGING CLOTHES.

Perseverance ensures success. A few years since, the attention of the agricultural community was called to the fact that large sums of money are annually sent from this to foreign countries, for the purchase of the basket willow, for manufacturing the various articles of commerce known as "wicker-work."

The inquiry naturally suggested itself to the Yankee mind, Why not supply this demand by home production, and thus save the cash paid for it for the use of our own countrymen? Our marshes and lowlands will produce the article to perfection, and our ingenuity can invent machines by which it can be prepared for market.

The objection was raised, that labor is so much higher here than in the old country, that we cannot peel and prepare for the weaver so as to compete with the imported article; and to this objection the efficient reply was made—We can make a machine that will do this, as well as other things for which Yankee ingenuity is proverbial.

As is generally the case, help came from among the hills in the agricultural districts. On the banks of the Winooski, the inventive genius of a young man began to dream out a plan, by which a machine might be made to do the work of a number of men, and produce a better article than those peeled by hand. The first plan, as is usually the case with valuable inventions, needed much ingenuity to perfect it, and many and expensive experiments must be made, in order to render it perfect. Perseverance finally ensured success, and the invention is before the public.

Finding his facilities for operating too much restricted, he removed to Waterbury, where, in an outlay far beyond his means, he risked his fortune, in company with a brother, and embarked in an enterprise which was an entire experiment in the history of "wicker-work." New efforts presented new hindrances, and increasing obstacles in the way of successful operation only roused increasing efforts to remove those obstacles, and brought out hitherto latent powers. One after another new facilities for carrying on the business of raising, peeling and manufacturing all kinds of willow ware in demand for the commercial world, were brought into requisition.

The question, Will it pay? is now solved, and the idea of the peeling-machine is applied to another use. Those flexible rubber rollers are neatly arranged, and made to press the water from the washerwoman's clothes with ease and rapidity.

This little machine, so simple as to be managed by a child, so cheap as to be within the means of every family, costing but three dollars and fifty cents, will *wring* the clothes much drier and quicker and infinitely easier than the strongest-armed Irish girl, and is to be reckoned among the many useful inventions for rendering kitchen work easier, and the washing-day less to be dreaded. Indeed, with a good washing machine,

and "George J. Colby's Wringer," we shall scarcely know when Monday comes. Washing day will be as quiet as Thursday, and Monday morning will not find the good, old dames "up, and a good fire agoing, and the clothes on boiling before one o'clock." Those good old mothers will not have to "keep Saturday nights" in order to put their "clothes asoak" Sunday nights. Then may they rest from their labors from the beginning of the Sabbath till the "red rosy light" of Monday morning.

Now, Mr. Editor, do not be surprised at my moralizing upon the clothes-wringer, for I conscientiously believe whatever lessens the task of washing day, in the same proportion will increase the quiet of the "Holy Sabbath Eve" that most sacred of all domestic hours.

Lest I weary the patience of your readers, let me add that this last invention has so far proved that perseverance will ensure success, that funds will no more be lacking. Sales of Territory have already been made which place its success beyond a doubt, and Howden, Colby & Co., are yet to be among the wealthy citizens of the Green Mountain State. The demand already warrants the manufacture of 500 per week, and when it has been before the public one year, or until December 4, 1861, ten times that number will not supply the demand.

Lest your readers may regard the above as a puff, let me simply add that it is written by one entirely disinterested in the business, without the knowledge or consent of the inventor or any person engaged in the business, and purely from a desire to see the untiring efforts of perseverance in a good cause, crowned with success.

*Vermont, Feb., 1861.*

P. J.

REMARKS.—The above communication has been on hand several weeks, until we could make trial of the wringing-machine so highly spoken of by our correspondent. It is has been in use in our family for three or four weeks, and our women folks say there is nothing like it. It is adjusted in a moment to any common tub, without the aid of screws or any other contrivance, but is held by the simple pressure of its parts. The clothes, from a shirt to a muslin collar, are "wring" with equal ease and facility, by passing them between rubber rollers. The flexibility of these rollers is so great that a thin card and a common pocket-knife, which we put between them side by side, were held with equal firmness, and so tight that we could not remove them without revolving the rollers. By this machine, the clothes are not *wrung*, but *pressed*, so that all twisting of the seams, and of the fabric of the cloth, which is so injurious to thin materials, is entirely avoided, and the work is done in a much better manner, as well as more thoroughly than by hand. Knowing our correspondent well, we can endorse all he says of his connection with the machine, and now that we have made a fair trial of the machine itself, we do not regard his praise of it as anything more than it well deserves.

**LEGISLATIVE AGRICULTURAL SOCIETY.**

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The eleventh meeting of the Legislative Agricultural Society took place on Monday evening last, a good company being present. The meeting was called to order by Dr. MASON, of Dartmouth, and CHARLES L. FLINT, Esq., Secretary of the Board of Agriculture, was introduced as Chairman of the evening.

On taking the chair, Mr. Flint said that the statements with regard to the economy of root culture in New England have often been too indiscriminate and unqualified. If, as Mr. Webster asserted, the failure of the turnip crop a single year would bankrupt England, it does not then follow that its extensive culture is of the same relative importance to us. If root culture is the basis of successful English farming, it does not follow, as a matter of course, that it would be for us. If the English farmer could raise 75 bushels of Indian corn to the acre as easy as we can, it might possibly modify his present system, to some extent. He did not mean to convey the idea that the extensive culture of roots is not equally profitable for us as for the British farmer, but merely to suggest the difference in our situations.

The perfect development of most of our cultivated roots requires a moist and equable climate. This the English farmer has, and we have not. The point of profit for him lies in the fact that root culture forms the most admirable preparation for wheat and other crops, and not in the intrinsic value of roots themselves. He might, if he could, be glad to dispense with the culture of so large an area as he generally devotes to the turnip, but then his wheat would soon fall off. Root crops, in other words, are cultivated chiefly as a means of making manure and to keep up the fertility of the land. Considered by themselves simply as food for cattle, they are not thought even by English farmers to pay the cost of cultivation. But as a change of food, either for horses, milch cows or sheep, the culture of roots, to a limited extent, and no doubt to a greater extent than is common with us, ought to have a place in every good system of husbandry.

Carrots, for horses not overworked, are worth pound for pound, nearly as much as oats. That is, a hundred bushels of carrots and a hundred bushels of oats are worth about as much to feed to horses as two hundred bushels of oats alone. The actual practical value for feeding purposes, does not always correspond with the theoretical value based on the comparative amount of nutriment in each.

Carrots are not so important to feed to cows in milk as to horses, though they improve the quality. The short-horn and the long orange are among the best varieties, though the white

Belgian will yield the largest. It has been produced at the rate of two thousand bushels to the acre. To cultivate carrots to any profit the utmost care is required to keep the land free from weed-seed, and unless the land is clean as well as the manure, the labor of taking care of this crop is enormous, and the expense too great to be borne.

For feeding to dairy cows the mangold is one of the best roots now cultivated. Though its nutritive qualities are far less than those of the carrot, and less even than those of the turnip, it is well settled that it excels those roots in producing a large flow of milk.

The mangold is a variety of beet, and has been extensively cultivated for feeding to stock in England and France, and to some extent in this country. William Birnie, of Springfield, raised 95 tons of mangolds the last season on two acres and a half, or at the rate of 38 tons to the acre. This is a large yield to be sure, more than could be expected in ordinary culture, but it shows what can be done. The Silesian beet, or the sugar beet, is a variety, that is cultivated to some extent, though he thought to less profit with us, than either mangolds or Swedes. The ruta бага, sometimes called Swedish turnip, is a variety of rape. It is one of the most profitable roots to cultivate, especially for feeding to sheep. It is more apt to taint the flavor of milk and butter than mangolds or carrots, but if boiled, or cut and salted, this objection to it may be avoided.

The root crop, generally, requires a good supply of phosphates in the soil or in the manure, and bones treated with diluted sulphuric acid, or the vitriol of commerce, or guano, or other concentrated manures rich in phosphate of lime, are more effective on this crop than on most others. These substances have the advantage of perfect freedom from weed-seed, a consideration of the utmost importance to this crop. The work on root crops should be accomplished so far as possible by machinery. Hand labor on them is extremely laborious and expensive. Carrots, for instance, sown as soon as practicable after the 15th of April, in drills from two to two and a half feet apart, may be cultivated with the horse hoe two or three times, and then a row of turnips or ruta bagas sown in the intermediate spaces. A large amount of expensive hand labor may also be saved in the culture of mangolds by the use of the horse hoe.

Mr. HARTWELL, of New Marlborough, said he had experimented to a limited extent in raising root crops, but had not met with much success. We have, said he, the corn crop, for a tillage crop, which they had not in England, but this was not a sure crop, from the variability of our climate, and if farmers could cultivate a crop that would

be more certain and pay as well, he thought it would be a great advantage. The question with him was, whether the root crop was of sufficient value to grazing farmers, or those who had, perhaps, a couple of hundred acres of good grazing land, to justify them in diverting a part of their manures to highly cultivate sufficient land for root culture. We know, said he, that on good land, with very high cultivation, enormous yields could be got, but it was doubtful to his mind, whether among the class of farmers he had mentioned, this would pay.

Col. WHITE, of Petersham, spoke of the importance of root culture to farmers, and said he had regretted to hear, at previous meetings, practical men doubt the advantages of this crop. In his section of the State few had gone into it, but those who had paid attention to it had done well. There was a good deal of good hay about where he resided, and some that was poor, and these advocates of root culture there had found they could do better by giving part roots and part poor hay to their cattle, than if they fed entirely on good hay, and he was satisfied that he could keep ten cows better on roots and poor hay than by the entire use of the best hay alone. He wanted to know what kind of roots were the best to raise. He had done very well with ruta бага and mangolds, but the sugar beet had been spoken of by the Chairman, and he was desirous to ascertain whether that would not be more profitable. He was also in want of information as to how to follow root crops—whether beets after turnips, or in what order they should be grown. His neighbors were going extensively into root culture and there was a very general feeling among them that it would pay.

The Chairman said it had been very generally conceded that a tap-rooted plant should follow a flat-rooted one, and *vice versa*, as the ground is found by this course to be in better condition for a good crop. He spoke of the advantages from this course, the feeding qualities of the soil being thus brought near the surface. He said that Indian corn should never follow ruta бага, as in very many instances in which he had known of its being tried he had never heard that it succeeded. He did not know why this was, but it was an undoubted fact.

Dr. GEORGE B. LORING, of Salem, was glad to see the change that was taking place in the minds of farmers in relation to the value of root crops. The culture of root crops might be considered high farming, but he would not recommend every farmer to raise roots, as where the value of hay was extremely low, and where, of necessity, a farmer is compelled to raise corn for his own consumption, root culture is of doubtful expediency. Where one or two tons of hay

are raised to the acre, and this is worth only \$10 per ton, it is preferable to roots, for the reason that the roots cost so much more than the hay can be sold for; but where a farmer can buy his corn cheaper than he can raise it, or can sell his hay at city prices, then roots are indispensable. Taking hay as the standard at 100, Swedes or ruta bagas would stand in nutritive qualities 300, mangolds 400, carrots 250 and corn 52. Thus 2½ tons of carrots were equal to 1 ton of hay, and where, in high farming, a fair crop of carrots is 20 tons to the acre; this is equal to 8 tons of hay; while 500 bushels of carrots are equal to 100 of corn; it is easier to raise the carrots than the corn; thus the question whether it is profitable to divert manure for raising root crops, is answered by this. The raising of roots should be regulated by the wants of the farmer. Swedes and other turnips are the most profitable roots on which to fat cattle, as they can be raised so much cheaper than mangolds, as no more mangolds will grow on the same ground than turnips. Mangolds for dairy farming are, perhaps, the best, as, with a little meal, they cause a free flow of milk and keep cows in good condition. One trouble in root culture is that farmers put them too thick and the rows too close together. He planted Swedes and mangolds 2 to 2½ feet apart, in rows, so that he could cultivate with a horse hoe well, and this he found the best method; carrots were more difficult to cultivate, but he pursued a similar course. He agreed with the Chairman as to following root crops, but he felt sure carrots could be grown on the same land two years in succession, and he thought three. A light soil was best for smooth Swedes, a solid substantial clayey one for mangolds, and carrots would do well anywhere, if well manured and cultivated.

Mr. WETHERELL, of Boston, spoke of reports of experiments made in raising the English turnips by men in Massachusetts, New Hampshire and Rhode Island, the result of which appeared in the Patent Office Report, and in which the parties had used 25 cords of manure to the acre, and had only raised 10 or 12 tons of turnips, as also of the analysis made of the English turnip, by Prof. Donellson, of England, showing that hay stood as 5 to 1 of turnips in nutritive qualities. He then called attention to the report of Mr. Atwater, of the State Board of Agriculture, on root culture, and said that from this report it would be seen that the Board of Agriculture does not consider the turnip culture advisable. The speaker thought that when we can raise 75 bushels of corn to the acre, it was far better than raising roots. In relation to the failure of the corn crop, he said that, in 16 years out of 20, the corn crop had been successful in this State, while the turnip crop was a decidedly uncertain crop.

Dr. LORING said that the last speaker had spoken solely on English turnips and corn, the former having had 25 cords of manure to the acre, but he would say that in this section we cultivated in a much more economical manner, and we raised by this something more than "organized water." As a member of the Board of Agriculture, he wished to say that he did not endorse the report in full, although there were some good features in it, but he decidedly objected to the sweeping recommendation with which the report closed.

Mr. PROCTOR, of Danvers, considered carrots one of the very best of root crops, although it required care and attention. It was an excellent preparatory crop for onions, and before the destroyer came, this latter was the best and most profitable crop raised in the county of Essex. The beet he considered good, as was the potato. Of the latter, said he, we can raise 300 bushels to the acre, and we can raise four times as much roots to the acre as hay. Corn is the staple crop, but it was seldom we hear of a yield of over 80 bushels to the acre. He had never been on a farm in his life where there was not considerable land that was good for carrots.

Mr. SHIELDON, of Wilmington, spoke particularly of potatoes, and said he thought enough care was not bestowed on them. Nothing after grass will make butter better than they will; pumpkins and carrots give it a better color, but the butter was not so good. A bullock fed on potatoes, appearing the same size as one fed on the ordinary feed, would weigh more by this course. In the country, he thought potatoes were as cheap a root crop as any for cattle, but near the city it was more profitable to send them to market. For 65 years he had not known the corn crop fail more than five times. He had raised ruta bagas, but until last year, he thought they impoverished the land; last year he planted some in a sand hill where he had to put on birch boughs to keep the sand and seed from blowing away, and he got an excellent crop of smooth, round ones "as handsome as a picture." He said he had been in the habit of planting 13 kinds of potatoes, and the earliest he had were "balls;" he considered the Davis' seedling and the Nova Scotia chenangoes also a good kind. He planted in swampy ground.

Col. STONE, of Dedham, said that as corn had been spoken of, he would state that he had procured some seed from Mr. CLAPP, of Dorchester, of a kind of corn which he had never seen excelled both for yield and early ripening. He had got some of the Vermont 90 days corn, and planted it alongside this, and Mr. Clapp's ripened some days earlier. It had been tried by a number of others, and all agreed in saying it was the earliest and best they had grown. For the benefit of

those who wished to try it, (although he had none for sale,) Col. Stone said he would leave a few ears with the Secretary of the Board of Agriculture.

The subject for discussion at the next meeting will be, "*The Management of the Dairy*," when Mr. ALLEN PUTNAM, of Roxbury, will preside.

*For the New England Farmer.*

#### RAILROAD SONG.

MESSRS. EDITORS:—The following trifle of mine, composed while awaiting an arrival at a railway station, was first printed in the Springfield *Republican*. It appears to take so well, however, especially with the juveniles, and I have so often been requested to copy it, that I am inclined to give it to you for republication.

Yours, truly,  
J. D. C.  
*Gill, March 23, 1861.*

#### RAILROAD SONG.

BY THE PEASANT BARD.

There's the bell! listen well!  
"All aboard!" is the cry;  
We are going, going,—gone,—  
We'll be back, by-and-bye.  
Now we're jumping with a thumping and a bumping  
O'er the rails;  
But our horse has "taken something," and his  
Strength never fails.  
  
Hear the bell; listen well;  
"Clear the track!" is the cry;  
We are flying, flying,—down  
Like a "streak o' lightning" by.  
What a racket! how we clack it, as we track it  
O'er the rails!  
But our pony needn't slack it, for his  
Strength never fails.  
  
Blow it loud to the crowd  
Who our coming wait to spy;  
We are coming, coming,—come;—  
Rub the cinders from your eye,  
As we're sliding, and are gliding, and are riding  
Into town;  
Never horse less need of "hiding," or less need of  
Rubbing down.

*For the New England Farmer.*

#### SEED TIME.

MR. EDITOR:—When we get past the middle of March we begin to think of "seed time." Already, on this Island, potatoes were planted 10 or 12 days ago, during the warm spell of 5 or 6 days. Our farmers are *skilled* in this department. They cut off the "seed end" or small cluster of eyes, give them to the pigs, and then cut the potatoes lengthwise into quarters, and plant twenty inches apart in rows. They say they get as many or more pounds, and "all large potatoes." The large eye, or germ, is on the body of the potato. The small ones on the end will make small potatoes and prevent the growth of the larger ones. Three to five vines in a hill are enough. Try it, if you doubt; it costs neither time or trouble. I have passed through several potato fields, and not a small vine to be seen; so in digging time, I have seen the ground covered, and not a potato that was not marketable as to size.

Again, in watching the potato articles from your various correspondents, it is positive evidence to me, and common sense in the aggregate, that it is a fatal mistake to plant small potatoes. On this Island, with a ready market and high price, they avoid seed ends and small potatoes, and select the largest for seed, as every judicious farmer would select and trace up his best ears of corn for seed. I hope to hear from some of your subscribers on this subject at the gathering of the next crop.

In corn planting, does not the new dropper place it too closely together? My impression is, that if the kernels are three or four inches apart, the stock grows freer, ears better, and is less liable to suckers. Has this experiment ever been tried? Would not heavy winds pass through and allow it to stand up better than if in a solid body? Weeds and suckers could be more easily exterminated.

In selecting lands for spring wheat, none should be appropriated to this crop but the *warmest* and *earliest* on the farm. It should be the first grain in the ground—the seed prepared in salt pickle for 12 hours, raked in ashes. No time must be lost in forcing it, to escape the blight and mildew of dog days.

Your richest sloping lands are best for winter wheat, sward is best, and every farmer has more or less mowing patches that need the plow. With the advantage of both crops, (spring and winter,) no farmer, making pretensions as such, should go into the market for a barrel of flour.

*Brooklyn, L. I., March 18, 1861. H. POOR.*

*For the New England Farmer.*

#### THOROUGH UNDERDRAINING WITH TILE.

My experience in laying tile drains commenced in August, 1858; soil nearly level, formerly cedar, pine and black ash swamp; top soil black muck, from six inches to four feet in depth; subsoil various. In some places sand, others clay, a mixture of sand and clay, and in some places a real hard pan. Through this swamp runs a small brook which is the outlet of all the tile drains, and in consequence of the slight fall for 80 rods below, and a lime-stone rock laying across the bed of the stream, I was unable to settle the stream and outlet as low as was desirable, and many of the tiles, at their discharge into the outlet, had to be below the bed of the brook, in order to lay them three feet deep in the soil. This is as shallow a depth as any of 32,000 that are laid up to this time have been placed. This land is so level that the average fall to the drains is rather less than  $\frac{1}{8}$  inch to the rod, say about one inch in ten rods; the distance of drains apart is generally 40 to 42 feet; those in sandy subsoil, 70 feet; others in the lowest places, with clay or hard pan subsoil, 30 feet apart. The main drains that enter the outlet, are one of  $4\frac{1}{2}$  inch, of 1000 pieces horse shoe tile, laid on a narrow board. This satisfied me with horse-shoe tile; I want no more of them; they warp out of shape in burning and make joints too open. Other main drains are 3-inch tile, single or two abreast, or 4-inch each, according to the distance from the outlet, the number of small 2-inch drains

they receive, and the quantity of water to be discharged.

All of the tile, except the 1000 pieces named, are sole tile, which are *the thing*. The ditches have all been dug and filled in by hand, tools used, common spades, ground sharp, long and short handled common shovels, picks, iron bars, and sledge. We find stone where the upper ends of the drains enter the uplands to cut off all springs that would enter the swamp land. The bottom of the ditches for the tile should be very true and smooth, without sags where the water would stand, and the joints of the tile to fit close by using a hammer or trowel if necessary. It is best, generally, to begin at the upper end of the ditches to lay, and lay the branches first, certainly, if as convenient, and there is water in the ditches. Pieces of refuse slate are nice where the branches enter main drains, to patch up bad joints, or, when you have to make curves in laying. When digging the ditches we threw the turf on one side, and all the other dirt on the other. All I have drained has been in turf. Before laying, have the tile in a line on top of the dirt, then one hand, with a corn-cutter, thin the turf to  $1\frac{1}{2}$  or  $1\frac{1}{4}$  inches in thickness; another hand stands in the ditch, lays the tile, and packs the turf grass side down on the tile, breaking joints, and as tight as possible; use up all the turf. The man laying walks backward in the ditch. I throw in about three inches of dirt, carefully, and tread it down snug; the rest of the dirt is thrown in promiscuously and left to settle. In laying with sods and treading down the dirt at the bottom, the object is to keep the dirt from going to the tile with the water and filling them up; the water will readily leak through the soil into the tile, although the soil be tightly packed.

Some pieces of tile laid the first season, not thus tightly packed, filled up and were dug up and relayed. Fine sand in a loose state, or a hard pan dissolved, composed mostly of fine sand becomes quick sand, and is more apt to fill up tile than any other soil. Clay or loam soil, when there was much fall to the tile, might never do it, although the joints were somewhat open. In laying the tile where we were unable to get a hard bottom by wetness or looseness of the ground, we lay on a board.

*Result on the soil by drainage.* Some  $8\frac{1}{2}$  acres of this soil had been plowed in extreme dry times and seeded for mowing, depending upon open ditches for drainage. Those in two years would nearly fill up. The grass would die out by the excessive wetness and coldness, and be succeeded by wild grasses of poor quality and small quantity, and in a wet season there was danger of miring oxen in carting, and until it had been drained the crops never paid the expenses laid out. Last spring two acres plowed the previous fall were sowed early to grass seed, and yielded good three tons of handsome clover and herds-grass hay. Four acres were plowed last spring and planted with potatoes, hoed once, a large yield, the best I have had in fifteen years on any soil. Two acres were sowed with oats and yielded largely. One-half acre to ruta bagas and cabbages and turnips, as satisfactory a crop as one could ask for; the turnips at the rate of 1200 bushels to the acre. The remainder of the land drained is not yet finished. The stumpy portion

is in pasture, where the bunches of wild grass have died out and June grass and white clover is taking its place, so that the past season it has been the best piece of the farm. Formerly it was only in a dry time that we could go on with oxen to pile stumps. The latter part of the season was quite wet here, yet we had no difficulty in harvesting the potatoes and turnips, in drawing forty bushels on a cart with a small pair of oxen, and now, and in the future, I consider that the soil will be sufficiently dry for roots, English grain or grass.

The tile cost when delivered on the premises \$15 per 1000, for 2-inch; larger sizes in proportion, being one-third part rail-road transportation and cartage. The cost of drainage will not vary much from \$35 per acre, for which I think the first two crops will pay, and the land now is worth, at least, \$150 to the acre.

The tile discharge water all winter and all summer when not extremely dry, and discharge with a velocity in proportion to the height of water above the tile, and where the discharge is under the water in the outlet, bubbles up like a large boiling spring. Here, then, is one of the most difficult pieces to drain, thoroughly done, and it is the first in these parts. Many others who have begun and done a little, are satisfied with what they have done; many more are about beginning. Tile are to be made here next season, when one-third of the expense will be saved. Our richest land will be brought into cultivation, and the place of the bullfrog, water snakes, bulrushes, cat-tails and wild grass, hillocks, miasmas and pestilence, will excel the western prairies in productiveness, and our young men will not be so apt to catch the Western fever.

H. W. LESTER.

Rutland, Vt., Feb. 14, 1861.

*For the New England Farmer.*

#### LARGE OR SMALL CORN.

MR. EDITOR:—I noticed in reading the *Farmer*, an article headed, "Which to plant, large or small corn?" The writer goes on to show that the 12 rowed is the most profitable, and yields 30 bushels to the acre; he takes nothing into consideration but the corn shelled.

I am a farmer, and a miller also. I have had a chance to see 8 and 12 rowed corn brought to mill in the ear, and I can say that not more than one grist in ten comes to mill of the 12 rowed but what gets mouldy before the cob is seasoned.—Another consideration is the fodder. The 12 rowed stalks grow so large, the cattle will not eat more than two-thirds of them, while on the other hand they will eat every one of the 8 rowed stalks; and there is no trouble to cure the corn or stalks, which is quite an item. The 8 rowed will bear planting nearer together, with more stalks in a hill, and requires from 2 to 3 weeks less time to bring it to maturity than the 12 rowed, on the same kind of soil. I venture to say that I can raise as many bushels on an acre of perfectly sound corn, that is, shelled corn, as Mr. "Massapoag" can of the 12 rowed variety, and the fodder worth one-third more. It is not half the trouble to cover it, and it is better corn when shelled, for market.

P. D. P.

Shelburne, Vt., Jan., 1861.

#### CULTURE OF THE CRANBERRY---No. 1.

There are several things which distinguish this age in a remarkable degree,—such as the power of locomotion in transporting heavy bodies, or in celerity of motion, or the blessings conferred upon the world by the aid of chemical investigation, and what more immediately interests us as farmers, the desire to inquire and ascertain how far we may take the plants as they are presented to us from the hand of the Creator, and transform or mould them into articles of food, clothing, or shelter for man, or for the animals which he rears.

The potato presents an illustration. Once a wild, small, almost worthless tuber, but now large, fair, palatable, nutritious, and almost indispensable. The brittle, aromatic, and juicy celery, now ranked among the luxuries of the table, was once a small, tough, bitter plant, rejected alike by man and beast. The carrot, which enriches and gives color to cream and butter, still grows wild and worthless in some of our fields, and along the highways. It is now valued upon the table, and greatly so as a winter feed for stock, and especially for horses. The apple and pear afford another illustration, familiar to all, and so of many other plants common to our cultivation.

It is this application of mind to material things—this inquiry into the recesses of nature and the development of her secret resources, that distinguishes an age or a people, and gives it a marked significance on the pages of history.

Among the plants that have for some time been receiving attention, is the *Cranberry*. It is not a new plant, any more than the potato or the celery, for it is probable that it was the accompaniment of many a savory haunch of venison among the Indians. It is susceptible of great improvement, both in size and flavor, as we have seen one variety affording numerous specimens a full inch in length, by actual measurement, the flavor and color of which far surpassed those growing without culture.

The cranberry cannot, like the apple, be employed in many different forms. In an uncooked state it is tasted, but never eaten as food. As a sauce for meats, it is unrivalled, not only in flavor, but in its beautiful color, which ornaments the table as much as the fruit pleases the taste. In jellies, jams, marmalade, puddings and pies, no fruit known has a more delicate flavor; yet, though delicate, its flavor is lively, almost sparkling, and highly agreeable. This delicacy allows the sick to use it when most fruits could not be taken. We do not think its acid is that of the apple, malic, nor of the grape, tartaric, but is something more delicate than either, which, when better understood, will become a valuable restorative in many cases of loss of physical power.

Its more general use would tend to promote the health and good-nature of the family. In hotels, where the table is well supplied, it is now considered as indispensable, and at sea, is found to give a cheerful vigor to both body and mind, while it fortifies the system against that fell scourge of seamen, the scurvy.

Its value as a condiment, and as a nutritive article of food, is generally acknowledged; it is natural to our soil and climate; its culture is pretty well understood, and when skilfully conducted, the results are quite certain; it is easily harvested, stored and preserved; it is supposed to possess medicinal qualities of the highest order in some of the most painful maladies with which man is afflicted; these qualities cannot fail to give this fruit a *pecuniary* importance worthy of the consideration of every farmer who has lands and market facilities adapted to its cultivation.

There are three kinds, at least, of this fruit found in New England meadows, each of which has been brought under cultivation. They are,

1. The BELL CRANBERRY,
2. The BUGLE CRANBERRY, and
3. The CHERRY CRANBERRY.

They derive their names from their resemblance to a bell, to a bead, called a bugle bead, and to the cherry, which it resembles in form, size, and color. All these varieties may be found in this vicinity. The bugle,—the variety to which we have already alluded, where twelve berries measured a full foot in length,—is found growing in some of the low places in this vicinity, in beautiful perfection.

We are not able to say which of the three varieties is the BEST, if there is really *any* difference in their quality. They are all good.

The *Soils* best adapted to the Cranberry are our low grounds, what we usually call muck meadows, or swamps. It seems to need a soil that is constantly moist, but not holding standing water, during the growing season of the plant, and it is thought by some that it requires nothing for its perfect development but air and water, and a foothold in the soil. Where we have found the cranberry in its greatest perfection, we have observed a considerable portion of sand, either underlying the muck, or intimately mingled with the black humus, or soil. Indeed, sand seems to be necessary to a luxuriant growth of plant and fruit. What the special agency of the sand is, we do not know; whether it affords strength to the plant by its silicic acid, imparts potash, or acts underneath as a strainer, and thus keeps the plant moist, but not submerged, we are not able to say. Were it not that the *humus*, or black, decomposed vegetable and sometimes animal matter, is such an absorber of heat, we

should be inclined to think the sand might act by storing up the solar heat during the middle of the day and imparting it back to the plants and the surrounding atmosphere during the night, and thus greatly equalizing the temperature through the growing season of the plant. This equalization would be important, because greater changes take place in these low grounds than on the high lands. Even in midsummer, in passing from a hill through a low piece of ground of some extent, we sensibly feel a change of several degrees, so that an overcoat would be agreeable when it would have been oppressive on the high land.

In an analysis of the cranberry by Prof. Horsford, of Cambridge, he found it mainly composed of water. In its ashes he found almost 45 parts were potash and soda. It seems evident, therefore, that although the amount of potash in the fruit may be small, it must be considerable where the aggregate of a productive acre of berries is so large. This may be one reason why the cranberry flourishes so well on the sea-shore, where alkalis abound. We know, also, that the potato requires a good deal of potash, and that it does best on new lands that have not been exhausted of that mineral by cultivated crops, and in meadows, composed chiefly of vegetable matter. The ample supply of potash to the plant seems to be another reason why muck lands are best suited to the cranberry.

In another article we will speak of the *Preparation of Soils for the Cultivation of the Cranberry*.

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For the New England Farmer.

**POMO D'ORO LESTERIANO,**  
OR THE NEW PERFECTED TOMATO.

Having noticed in the *Farmer* of the 2d a valuable communication from the pen of Mr. C. E. Lester, upon the cultivation of the tomato, referring to his new valuable variety, and having experimented with it the past summer, I herewith give you my experience in the cultivation of this tomato, compared with other kinds.

I obtained, and planted the seeds of Lester's Perfected Tomato in pots, the 20th of March, and placed them in the green-house, transplanting six plants into the open ground the 20th of June, at the same time placing six plants of the large early Red Premium Tomato, at the other extreme end of my garden. I manured, and served them alike through the summer. The Premium Tomatoes were much larger than the Perfected, when set out, but the latter soon outgrew the former, and ripened their fruit 16 days earlier. The quality of the fruit was superior, as described by Mr. Lester. Thin skin, very solid, large, and very prolific in bearing. I sent a dish of the tomatoes to the Essex County Agricultural Society, and obtained a premium for them; the committee pronounced them superior to any variety on exhibition.

JOHN S. IVES.

*Salem, March, 1861.*

For the *New England Farmer*.

### PRODUCTS OF A SMALL FARM.

In New England, and particularly in Massachusetts, where there are so many manufacturing villages, and therefore good markets, there is a great inducement to cultivate a little land well raise fruit and vegetables for market, and make better returns than those who cultivate more land under the old stereotype way of farming. In fact, most of our farmers have too much land, and too much of it poor. It should be divided among their sons, more capital expended upon it, and more money made. More refinement exhibited, less drudgery, family better educated in all respects; more time for social and intellectual improvement, and finally more happiness, which is only found in the enjoyment of labor under an enlightened and refined social system. The profit of farming is often discussed. I am decidedly in favor of rural life upon the farm, and think it the safest business I can follow; it brings the surest returns, and in it are all the elements of health, happiness and true independence. I have but a small farm, which I intend to take good care of. I propose to give you the products of ten acres in one lot. In this lot there are 80 young apple trees, from three to ten years old; a part of them were in bearing this season:

#### EXPENSES.

|                                       |       |
|---------------------------------------|-------|
| Paid for manure.....                  | \$15  |
| Drawing manure.....                   | 4     |
| Plowing seven acres.....              | 10    |
| Harrowing and cultivating.....        | 3     |
| Other team work.....                  | 20    |
| Work on the farm.....                 | 120   |
| 10 acres, worth \$1000, interest..... | 60    |
|                                       | <hr/> |
|                                       | \$232 |

#### PRODUCTS.

|   |          |
|---|----------|
| 3½ acres grass, 6 tons hay, \$10.....         | \$60.00  |
| Rowen, 2 tons, \$10.....                      | 20.00    |
| 2 acres oats, 80 bushels, 60c.....            | 40.00    |
| 2½ tons straw, \$5.....                       | 12.50    |
| 1 acre potatoes, 150 bushels, 40c.....        | 60.00    |
| 1 acre Swedish turnips, 700 bushels, 25c..... | 175.00   |
| 2 acres corn, 114 bushels, 75c.....           | 85.50    |
| 4 tons stalks, \$6.....                       | 24.00    |
| Apples.....                                   | 20.00    |
| 1 bushel beans.....                           | 2.00     |
| Pumpkins.....                                 | 3.00     |
| 500 heads cabbage.....                        | 20.00    |
| ¼ acre sowed corn.....                        | 6.00     |
|   | <hr/>    |
|   | \$523.00 |
| Expenses.....                                 | \$232.00 |
|   | <hr/>    |
|   | \$296.00 |

I used the manure I made, besides the \$20 worth I bought. The oats were threshed and measured, the corn weighed, the hay estimated, the turnips all measured, 400 bushels sold at 25 cents per bushel, and the balance on hand, at a higher market. All the crops were carefully estimated, and many articles raised, consumed by the family, not counted. JUSTUS TOWER.

*Lanesboro', March, 1861.*

MEMOIR OF GEN. LYMAN.—We have before us a brief Memoir of the late Gen. THEODORE LYMAN, a great and good man—a great man, because he constantly exerted his good qualities to bless his kind. His heart was as expansive as the wants of his race, and his wealth continually flowed in gentle and unobtrusive streams to satisfy those wants. This Memoir is republished

from Barnard's *American Journal of Education*, for March, 1861, and affords us several incidents of Mr. Lyman's life heretofore unknown to us.

For the *New England Farmer*.

### TOP-DRESSING---FERTILIZERS.

MR. BROWN:—I notice a recent article in your paper from RICHARD S. ROGERS, upon the subject of top-dressing meadow lands. I agree with him in the importance of a better understanding of the subject. There is a great want of care in spreading manure, both on plain land and meadow. Two years ago I passed a farm as good as any in the county of Berkshire, and saw two or three acres covered thickly with manure ready for plowing; how long it had been spread I do not know, but as the weather was very drying, should judge that at least one-half of the value of the manure must have evaporated before it was covered with the plow. I have never gone into the experiment of Mr. Rogers, but I have tried spreading on both fall and spring, and have uniformly had the best success in spreading in the fall. Much depends upon the season, whether wet or dry. In Aug., 1853, I spread over about two acres with yard manure, the weather being too wet to make hay for a week, so that the manure was thoroughly soaked; the grass came on so that it gave me great after growth. At other times the weather has been dry, when I received no benefit at all from the manure. A different plan occurred to me a year ago last fall, that, instead of spreading clear manure it would be better to mix it with loam, making a compost, believing that the loam would prevent the manure from evaporating. I accordingly made a heap of about equal parts of some 60 loads, spread it on early in the spring to about three acres. The season being very dry, from April to July, it did not increase the grass very much, perhaps half a ton per acre, except on about one acre of very moist land, which gave me about three tons per acre! I also made a small harrow with nine or ten teeth; side five feet long, four feet wide, with knife teeth set straight forward to cut the turf. It was harrowed, perhaps five times over. We had very refreshing showers the latter part of August, so that the after growth was very thick and fine. Another summer I expect to see a great crop.

Another article from "R. M.," of Westboro', I think is to the point. Much is said about fertilizers; I should consider them, more strictly speaking, stimulants. Some twenty years ago, before guano was discovered, I took from under my barn, where the geese and hens had run freely for twenty-five years, three loads and spread on a meadow, in the spring; the growth was just about double for the first year; the next year there was no perceptible difference where the three loads were spread, and where nothing had been applied. I look upon it as operating like the guano, stimulating the soil to produce a great growth for one year, at the expense of the soil; so that if such a course was taken from year to year, the land would become impoverished, unless more or less yard manure was applied. A man, for instance, under the influence of brandy, would, doubtless, for a given time, do more work; but were he to follow up dose after dose with little or



no nourishment, he would soon be as much below par as he was above, after the first drink. Therefore, I say, brother farmers, make your own manure, and apply it in the way and time when you will receive the most benefit.

*Stockbridge, 1861.*

S. BYINGTON.

### EXTRACTS AND REPLIES.

#### HATCHING CHICKENS.

To what degree of temperature is it necessary the atmosphere should be raised to correspond with the heat of a hen's body while she sets? or in other words, to what temperature, (Fahrenheit,) is it generally thought necessary to raise the air by artificial means to hatch an egg? Secondly, is there, at present, any establishment carrying on the business of hatching chickens artificially? And if so, with what success is it done, and if not, what difficulties or objections are there to discourage such an undertaking.

*Walpole, March, 1861.*

J. R. SANBORN.

REMARKS.—We cannot tell, precisely. Take a small thermometer and place it under a sitting hen, and you may easily learn. We know of no establishment carrying on the hatching business. A gentleman somewhere West recently attempted it, and after sinking two hundred dollars, states that he abandoned the enterprise.

#### MANURES—AND A DIFFICULTY.

I am going to farming for myself, this year, and as the hay was mostly sold off from my place last year, I have got to buy manure.

The Baker and Jarvis Island guano is advertised in your paper. I would like to know if it is as profitable to buy as any? The "Muck Manual" speaks of muck and potash as a valuable manure. Pearlash is cheaper here than potash—will it do as well?

A part of my land has a dark, moist, heavy loam, and some of it a light and somewhat sandy loam. I intend to make a few experiments, and will give you an account of them hereafter, if you would like.

ABNER L. BUTTERFIELD.

*West Dummerston, Vt., 1861.*

REMARKS.—No questions are more difficult for us to answer than those which relate to manures. They are used under so many different circumstances, and in many instances with so little skill, that what gives a satisfactory result in one case is equally unsatisfactory in another. There is one infallible rule, however, which is of universal application, viz.: Plant corn on good land, and apply not less than *six cords* of manure to the acre—which would be *eighteen* ox-loads, of about *thirty-five* bushels each. To this should be added to the hill, while planting, a small handful of guano made from the hen-droppings, or some other domestic fertilizer, recipes for making which we have already given, and which every farmer may have. We have no doubt but that American guano, superphosphate, potash, pearlash, plaster, &c., may be profitable when moder-

ately and judiciously used. After liberal manuring, however, there is nothing we should more earnestly recommend, than a handful of wood ashes, either leached or unleached, applied to the hill at the first hoeing.

If a farmer wishes to plant an acre and a half with corn, and has but eighteen loads of manure, he will be very likely to get more corn by applying all the manure to *one acre*, than by applying it to the whole. Sow the half acre with oats, and turn them under as manure.

#### A GOOD WASHING FLUID.

I noticed in a recent *Farmer* an inquiry for a washing fluid; I will give one which my wife has thoroughly tested, and finds that it will save much of the labor of washing—to say nothing of the saving in other matters, such as "strained backs," "cross words," "short dinners," &c, common to washing days.

Take one pint spirits of turpentine, one pint of alcohol, two ounces of hartshorn, one ounce of gum camphor; shake well together; then to one quart soft soap add three table spoonfuls of this mixture. Wet the clothes first, then soap them with the mixture, lay them in a tub, and pour warm water on them; let them remain half an hour or more, then wring them out of that water, soap them again and put on to boil; then finish by rinsing, &c.

C. M. F.

*Cabot, Vt., March, 1861.*

REMARKS.—Mrs. "Experience" will please observe the above, and be comforted.

#### SEEDING WITHOUT A GRAIN CROP.

I would like to inquire whether it would be profitable to seed down land with herdsgrass, clover and red-top without grain, and if I should get a crop of hay the first year; and if so, should the seed be sown early or late in spring?

*Andover, N. H., March, 1861.* A FARMER.

REMARKS.—By sowing early, a light crop might be obtained, if the season proved a moist one.

#### POULTRY RAISING BY A LITTLE BOY.

I read the account of poultry raising by Mr. "J. B.," in the *Farmer* of last week. I send you the account I kept with my Black Spanish fowls from Jan. 1, 1860 to Jan. 1, 1861. I had 8 hens and 1 rooster. During the year I bought 7½ bushels of corn at \$1,00; meal and meat 75 cts.; father gives me the refuse from the kitchen. In the course of the year my hens have laid 703 dozen eggs, that I sold to father, charging him the price each week that you put down in the *Farmer*. My eggs come to \$13,79. I raised 8 fowls that I sold for \$4,00, and 7 more which I keep. The account will be something like this:

|                                       |        |
|---------------------------------------|--------|
| Cost of keeping 9 fowls one year..... | \$8,00 |
| Eggs they have laid ".....            | 13,79  |
| Chickens sold.....                    | 4,00   |
| Chickens kept.....                    | 3,50   |

this leaves \$13,29 in favor of the fowls.

*Malden, Feb., 1861.*

C. O. GWYNNETH,  
10 years old.

*For the New England Farmer.*

### FARM JOURNAL AND FIELD BOOK.

I had occasion, not long ago, to refer to the *American Almanac*, a very valuable publication, by the way, of 1833, and I there found an article of considerable length, giving extracts from the writings of WASHINGTON upon agricultural matters, embracing his thoughts upon various farm topics, plans for a rotation of crops, suggestions for the management of an estate, treatment of manures, &c., and concluding with brief extracts from his *Farm Journal*, showing how methodical and systematic he was in every part of his farming operations. These extracts were generally brief, just showing where, and what work was performed for the day, with a reference to the state of the weather, &c. I mention this to show that WASHINGTON, as the most noble American farmer, thought it of great importance to record the daily transactions of his estate, and as a sort of introduction to a few remarks upon *Farm Journals*. Of farm accounts, the debtor and creditor, I do not intend to write, but of regular journals or records, and also of a "Field Book," I propose to say a word.

Every intelligent farmer who is aiming for the advancement of his occupation, should have a plan of his farm, drawn to a scale, and so marked out, that each field, brook, meadow, hill, and forest growth can be designated and observed at a glance. This plan need not cost a great sum; it is not necessary that it be nicely executed, as a piece of artistic skill; but if the farmer can use a rule, compass and pencil, he can draw a plan himself, and one which will answer every purpose. This plan should be so complete, that the fields may be numbered thereon, and room left for certain figures or letters to be made upon it, which letters refer to notes, remarks or other explanations in the *Field Book*. The *Field Book* is a small volume which the farmer carries with him, and which he should never be without. Passing over some part of his farm, he notices something which must be done immediately. A brief note of it is made on the spot in the *Field Book*, and it is attended to at the first opportunity, but for which, it would have been forgotten, and therefore remained unaccomplished.

The map of the farm shows the owner its situation, the lay of the different fields, the courses of brooks, the direction of fences, and the position of the whole estate. The *Field Book* is the key of explanation. It tells the character of the soil in a given locality; it shows what particular crop is now growing in a certain field; it points to where there is good fence or poor fence, enclosing pasture or meadow; and contains the suggestive notes for improvements to be made upon the farm, both present and prospective.

To give a more perfect idea of the use and importance of a *Farm Map* and *Field Book*, let us take a glance at both. Upon the map, at a given place, we notice, *d*, 3; and by reference to the *Field Book* the same letter and figure is found with this note of explanation.

"At *d*, there are about ten rods of poor fence which must be re-built the present summer. Cut poplars at 3—the figure 3 having reference to a thick growth of poplars as shown on the map—in June, and as soon as harvest is over, have the

fence built of poplar-rails, using the stakes and bunks which Robert made this spring, and which are now in the open shed. May 7, 1859."

It is often the case that farmers wish to make changes in their fields, turning out certain ones into pasture, making divisions in others, and also making other improvements, such as clearing them of rocks, or putting in drains. Work of this description can be all planned within doors, provided the farmer has a map upon which he can look, and when his plans are matured, the notes can be made in the *Field Book*, and put into operation at the first seasonable moment. So, too, if the farmer is necessarily absent for a number of days or weeks, he can arrange his work in advance, make notes for the foreman to carry out, and the whole labor of the farm would go on in his absence, as if he were present to manage every job himself.

The *Field Book* is the farmer's *daily*, which notes down events as they occur, and makes suggestions for future improvement; the *Farm Journal* answers to the stately *weekly*, where opinions are advanced, theories discussed, reflections written out at length, and all matters of importance recorded for future reference.

A suitable book for a farm record, is one made of foolscap paper, or better still, such blank books as are for sale at most stationers, comprising some 200 or 250 pages, and which can be bought for less than a dollar. These books will last a year or two, perhaps even longer. The heading of each page should be something like the form here given.

1861. FARM JOURNAL. 23.

The number at the right refers to the page, and on the page opposite, corresponding with the year, should be written the month. The records suitable for this farm journal are all those which come within the province of the estate, accounts of the work upon the farm, with records of the success or failure of certain experiments, state of the weather, fall of rain and snow, appearance and disappearance of birds, insects, &c., time of leafing out of common shrubs and trees, &c., &c.

Most farmers can easily find time for the keeping of such a journal, if they are satisfied of its importance, and only give attention to it. At times, more can be written than at others, but a record should at least be made once a week, embracing the more important topics of the *Field Book*.

The author of this sketch writes from actual knowledge of the subject, and is therefore preaching what he practices. Besides a rough map of his small farm, and various *Field Books*, now not of so much value, that their chief contents are copied into the journals—he has six volumes of a private farm journal, each volume of large foolscap size, and embracing from two to three hundred pages. The motto of these volumes I suggest for others:

"Count that day lost, whose low descending sun  
Views from thy hand no worthy action done."

*Brookdale Farm, 1861.*

S. L. B.

REMARKS.—Everything that tends to bring farmers to the opinion that their business is worthy of systematic management, is a benefit to

them, because such management will *increase their profits*. We cannot claim such a nice system as our correspondent recommends, but can inform him that we have a map of our farm, and a daily record of *thirteen years'* continuance.

#### LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE N. E. FARMER, BY THOMAS BRADLEY.]

The twelfth meeting of the series of this society was held at the Representatives' Hall on Monday evening, but in consequence of the unfavorable weather the attendance was not so good as usual. The meeting was called to order by CHARLES L. FLINT, Esq., who introduced ALLEN PUTNAM, Esq., of Roxbury, as Chairman of the evening.

Mr. Putnam, on taking the chair, announced the subject for discussion, "The management of the Dairy," and said that he was somewhat surprised at being selected to preside, as it had been some years since he was actively engaged in farming pursuits, and that being the case, he scarcely considered himself fit to preside, although possibly he could hint some justification for the abnormal selection of the committee, in the fact that the consumer of butter, who goes into the market for his annual supply, may have a better opportunity to determine whether the quality of butter, as a whole, which is offered for sale from year to year, is improving, or stationary, or deteriorating, than he who supplies his table from his own dairy room. It is not incredible, said the speaker, that buyers and consumers are a little more expert and successful in exposing faults and blemishes in products of any kind than are the producers and sellers. Butter makers may find consumers better posted and more out-spoken as to the faults of their work than they are themselves, and perhaps, said he, this was the object in selecting the chairman of the evening.

After alluding to the difficulty he found in getting butter at the present day to his taste, the speaker said it might be attributed to its being difficult to suit him, but while he admitted the charge might be true, he meant to express a firm conviction that the general quality of butter offered for sale in the Boston market has been deteriorating. This position, said he, may seem bold and unwarrantable, and I presume there is more thought and more supposed science brought to bear upon butter making now than fifteen years ago, still I charge that the butter of New England is not as good as it was then.

Different cows of the same breed, different breeds of cows, different pasturage, different kinds and qualities of dry feed, different cellars or dairy-rooms, different atmospheres and the like, each, said he, marks, in some degree, its own

peculiarities upon the butter produced in connexion with it; but these, and perhaps some other points, are presumed to be now as favorable in New England as at any former time; at any rate, it is presumed that our breeds of cattle have not deteriorated, our pasturage and our climate have not altered much, dairy-rooms, as a whole, must be as airy and as good in every way as they were ten years ago, therefore these cannot account for any marked change.

Where, therefore, asked the speaker, can we find the causes of the change? Is it in the lessened labor and skill of the dairy women, who work over and pack down the butter after it is taken from the churn? Is it possible that the present generation have failed to come up to their mothers in butter pains-taking and skill? While many of them leave a great deal of butter-milk where it variegates the color and injures the flavor of the butter, the speaker said he would hold the women innocent until they were proved guilty.

He then alluded to the churn, and spoke particularly of the thermometer churn—the popular churn of the day—12,000 of which he said had been annually sold by a single house in Boston for the past few years, and he said it might fairly be presumed that from 30,000 to 40,000 were now in use in dairy-rooms which forward their products to Boston market. Mr. Putnam said he would state a few facts that had turned his attention to the action of the different varieties of churns, and the quantity and quality of butter they will severally produce from the same quantity and quality of cream.

Some eighteen months since, said he, a Mr. Wilson, then of New York, called on me, and introduced to my notice a patent churn of his own invention. His account of its working excited my curiosity, and I proposed to test its merits. We went to the warehouse where his churn was, and then procured two cans of cream from a milkman, which was not, of course, of the richest quality, and the whole was poured into a new dasher churn and then well stirred. Alternate quarts were then poured into a thermometer churn, and the air-pressure churn of Mr. Wilson, the temperature in the thermometer churn was made right, and the two were started simultaneously. The butter came quick enough in each churn, but upon taking it out of the two a difference in color was very noticeable. The air-pressure gave the deeper and better yellow, but the quantity was not much different, so far as we could notice with the rough scales used.

The speaker then alluded to another trial of the two churns where the advantage of the air-pressure churn was still more marked, both in quantity and quality, and after submitting the

butter produced by each churn to several parties, they had all conceded that made in the Wilson churn to be the best. He felt sure the difference in the quality of the butter was in consequence of the difference in the churns, the deeper color of that produced in the Wilson churn coming obviously from the increased amount of oxygen which the compressed air brought in immediate contact with the cream. Milk, said he, is white, but the upper side of cream is yellow. It has taken its color or coloring influence, from the atmosphere in contact with it. The air-pressure churn brought more than the natural atmosphere in contact with the coming butter, and increased its yellowness.

He accounted for the increased quantity produced by this churn over the thermometer churn, from the same quantity of milk, by the probability that the pressure of atmosphere upon every particle of cream caused each butter particle to separate from the milk, or burst its enclosing sack, and thus obtained all the butter from the milk. He said that the grain of the butter was better when produced by the Wilson churn. The thermometer churn, said the speaker, made of zinc, brings the cream and butter in contact with that metal, and it is worthy of inquiry whether the metal has or has not a deleterious action upon the butter. The facilities for raising the temperature by putting hot water around the body of the churn, it is necessary to use with caution, for unless the operator is very particular, and a patient waiter, he will pour in so much hot water that by the time he has been churning five minutes, his hot water and dasher combined will have put the temperature in the churn ten degrees higher than he intended it should be, and Mr. Putnam said he thought that one of the principal causes of poor butter is churning it in contact with metal, and under an undesigned and unsuspected height of temperature.

From another experiment that had been tried, he had been led to consider whether it would not be possible by putting cream in an air-tight vessel, and pumping in repeated supplies of compressed air, to produce in butter the color to be desired. The speaker said he strongly inclined to the belief that much could be done in that direction. When the feed, the weather and the dairy-room are all right, the atmosphere, without condensation, may give a perfect color to butter, but there are times when nearly all butter-makers would like a richer hue.

Mr. FREEMAN WALKER, of North Brookfield, spoke of the great interest he felt in the subject of discussion, as, within a few days, butter dealers had told him there was scarcely a good tub of butter to be had in the Boston market. The material, said the speaker, is the same, yet the

price for good butter was now from 20 to 25 cts., while the greater portion in the market was dear at half that price, and he could not name a more objectionable article of diet than bad butter. Some time since he had used both the old dash churn and the barrel churn, and he considered the first named the best, and although it required more labor to produce the butter, yet this was compensated for in the increased quantity of butter obtained. The farmers in his neighborhood were mostly engaged in cheese-making, and at a future part of the discussion he proposed to speak more particularly of this part of dairy farming.

Mr. WILSON, the inventor of the air-pressure churn, then gave an interesting description of his churn together with the circumstances which led him to experiment in the matter. He said the air-pressure churn was valuable as a churner of milk as well as cream, as a great deal of time was saved in the operation, as by the present process it requires an hour, while by the new churn it could be done in eight or ten minutes. He would advise farmers to churn their sweet milk, which coming from the cow about 98°, is ready to churn when it falls in temperature to 60°. In New England, he said, there were 50,000,000 lbs. of butter produced from 180,000 cows, and he was satisfied that more \$5,000,000 were lost every year to farmers in the depreciation of their butter.

Mr. FISK, of Shelburne, had had some experience with cows, and he was astonished to see the difference in butter. He had no interest in any churn, and he cared little by what kind of churn butter was produced, yet he thought that the cows had more to do with the quality and the color of butter than the churn. He had ten cows, one of which was a Native, never having been guilty of having been crossed, and with precisely the same feed as the others, she always gave excellent yellow butter and milk, while another he had gave butter as white as lard, and thin poor milk. He insisted that the greatest cleanliness should be observed in the dairy so as to keep the milk sweet as long as possible. The great object should be to get out the buttermilk entirely and work it well, and there was no trouble in getting good sweet butter, which with the dairy women in his section was worth from 25 to 28 cents per pound. He objected to artificial coloring, but preferred the carrot coloring to the practice of giving the cow cotton seed meal. He said the farmers in his neighborhood found that they could make 2½ to 3 lbs. of cheese to one pound of butter, and if they could sell this from 10 to 12 cts. per pound, it would seem as though cheese-making would be more profitable, yet it must be allowed that in this case a most excellent feed for pigs, the sour milk, would be lost.

Mr. HOWARD, editor of the *Cultivator*, said

that he could not agree with the statement in regard to the poor quality of the butter brought to the Boston market, as his observation both in the market and at the exhibitions of the various agricultural societies had led him to think that the butter was improving. He could not believe the great principles of butter-making were in any patent churn, as his opinion was that they lay behind this. He thought a great deal depended on the temperature, but he was satisfied there was a great amount of ignorance in making butter, and among those so ignorant, salt was considered a remedy for most bad butter, but this was not so, and in many parts of England butter that had been salted was not allowed to be sold, and there, butter was made so well, that it would keep well for months without a particle of salt.

Mr. WILSON described the method of making cheese on the Western Reserve in Ohio. In the large dairies he said they invariably churn their whey and sell it in the New York market, where it is used for pastry. In some places farmers make butter from their fresh milk, and then from the refuse make cheese, which of course is of an inferior quality, but brings a fair price in the market.

Mr. BUCKMINSTER, editor of the *Ploughman*, said that cows in New England averaged 5 lbs. of butter per week, while some produced as much as 10, 15, 17, 19 and 21 pounds. He thought much depended, in the quality of the butter, on the breed of cows, and the food given them. He thought the reason that there was so little good butter in the market was that the more wealthy classes contracted for their butter before it went into the market. He did not know how the air-pressure would operate, but he was satisfied that a churn would yet be introduced, together with other improvements, that would render unnecessary the working of butter by hand.

Mr. WALKER, of North Brookfield, said that whatever might be said of butter, cheese had not deteriorated in quality. He had been, for many years, on the committee on cheese at their county agricultural show, and when he first held the office he was astonished to find so many flavors and different smells, but now there was a greater similarity in the quality and smell; yet there was still much to learn. There was one trouble in the want of uniformity in the quality of cheese and that was that a man who made cheese worth fourteen cents per pound, cannot get more than twelve and a half cents for it, because it is in bad company. He thought that either the quantity or quality of the rennet caused the trouble in cheese.

**FEED BONES TO THE HENS.**—If you take fresh bones from the kitchen, and with a sledge, on a rock, or any natural or artificial anvil, pound them

up into small pieces, hens will eat them ravenously and not only will they digest the bones and make a better manure of them than can be made in any other way, but they will be themselves greatly benefited by them; they will lay throughout the season with much greater regularity than otherwise, and will fatten on the marrow within, and the fat and muscle will adhere to the bones.—*The Homestead.*

*For the New England Farmer.*

#### FARMING OPERATIONS MADE PROFITABLE---No. II.

To \_\_\_\_\_.

DEAR SIR:—Having in a former communication answered your first and second interrogatories, I now proceed to those in your third section, which, with the prefatory statements, are as follows:

"I always had a fondness for farming, but circumstances in early life turned me into other pursuits. At length I have resumed my favorite occupation, and desire to make a pleasant rural home. I have means to farm it as I please, but still, as a business man, and on principle too, I wish to so manage as to farm for a profit and set a useful example to others. I am willing to make any judicious investment in the improvement of the soil itself that will as a practical business operation pay a fair return. With this brief preface, I would say that the tillage land of my farm has been rather superficially cultivated, and the surface soil is a good deal worn. I have not much practical experience in regard to soils, but it has seemed to me that the subsoil should be taken into account in judging of the character and capacity of land. I have examined the subsoil in various places, and find it to be mostly a stiff and close brown or yellowish loam, and usually packed down hard. How shall I proceed with this land, what kinds of plowing do I want, how deep shall I plow, how cultivate afterwards, and in short, what plan of improving husbandry shall I pursue to make it productive?"

I am pleased to learn that "at length you have resumed your favorite occupation; and I certainly wish you much enjoyment in its pursuit, and every success in making for yourself "a pleasant rural home." How much deep meaning those sweet words convey! What can be more charming, or refining to character, than "a pleasant rural home," amid the lovely and grand and improving scenes and influences of nature, and with the peculiar means and incitements it affords for the cultivation of the intellect and affections. What earthly influences more potent than these to promote that virtue and intelligence which emphatically fit one to be a worthy citizen of the Republic, and a lover and firm defender of his country.

The ends which you propose to yourself in farming are certainly most commendable. There is much sound sense in the wish you express to make your farming a judicious business operation, and in this respect a good example for others to imitate; and when a man has arrived at the conclusion that he is willing, as you express it, "to make any judicious investments in the improvement of the soil itself that will, as a practical business operation, pay a fair return," he has struck the very key-note of successful farming. This is a much wiser course to pursue than that which demands the uttermost farthing that can be wrung from the farm, to be sequestered from it and invested at interest or in matters

outside of farming, leaving the land nearly or quite unrequited for its efforts at production, and at length a poor run-down farm, worth but a fraction of what it would have been by liberal usage, either to keep, or to bequeath to heirs, or to sell.

You are correct in the impression that "the subsoil should be taken into account in judging of the character and capacity of land. Land is to a considerable extent valuable in proportion to the character and quality of its subsoil. Almost any land can be brought up to a certain medium degree of excellence. But when you wish to go beyond that, you will find some trouble and expense in doing it with land that has naturally a poor subsoil. Land with a loose, coarse, sandy or gravelly subsoil quickly feels the parching influence of hot suns and dry weather, does not hold fertilizing matters applied to the soil very well, and when laid down to grass does not last long in a highly productive condition. It may be improved, it is true, but it is not easy by ordinary means and methods to carry it beyond a certain fair medium degree of excellence. Land with a subsoil containing qualities poisonous to the roots of cultivated crops is quite difficult of a high degree of improvement. But land with a strong, unctuous, fine-grained subsoil of loam or of clay loam, that holds fertilizing matter well, and on suitable exposure to the atmosphere slakes or disintegrates willingly, so that it is susceptible of a fine mellow tilth, may be improved rapidly and to a high order of production, and that without extraordinary means or expense.

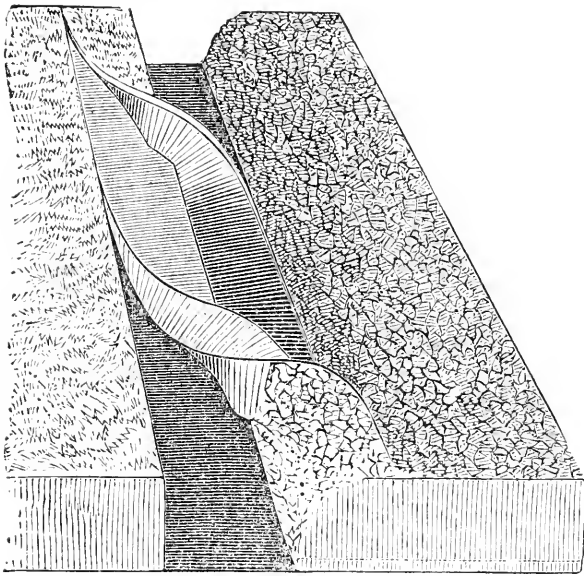
From your description, I judge it not unlikely that you have a better farm underneath than that on top which has become so worn by shallow tillage. Such a subsoil as you describe, brought to the surface by deep plowing, and enlivened by atmospheric influence, high manuring and thorough cultivation, and mixed with the older surface soil, will make you a deep, friable soil, and superb tilth of land, producing greater crops than the land ever bore by shallow tillage, even though well manured, indeed even greater than when it was new from the stump. I can show you instances where this deep kind of tillage has so increased the products of land as to make it necessary to increase the barn storage very much. A deeply-worked soil has several advantages over a shallow one; it better withstands the peculiarities of a too wet or too dry season; it is easier to till in after cultivation, from the greater depth of mellow earth thus induced; the roots of vegetation have a stronger hold upon the soil, and the crops standing firmer on the ground, are not so easily injured by winds and storms; the manure may be suitably inclosed in mellow earth near the surface, where it is more active in its effects on soil and crop than though it had to be turned under the sod or else left on top, as would be the case by shallow breaking-up; subsequent tillage mixing the manure through the deeply-mellowed soil it has a greater and more lasting effect upon the land; and when the land is laid down to grass, it holds out longer in productive mowing, because the roots having a deeper range, do not so soon become entangled in a web near the surface, and the sod is not so soon "bound out."

With such a subsoil as yours, you may at once plow at least eight or nine inches deep, where you

apply say twenty-five cart loads of compost per acre, and ten inches deep if you put on thirty to forty loads. If your facilities for manure will allow you to give the land forty loads per acre, that amount applied will improve the land rapidly and pay you well. I suppose your land has not been plowed heretofore more than six or seven inches deep. You will therefore by increasing the depth, as above named, turn up two or three inches of subsoil to mix with the old surface soil by after cultivation. At the commencement of the next rotation of crops, or after the land has been laid to mowing and needs breaking up again, you can plow ten to twelve inches deep, if you choose; and by this time you will have secured a deeply-worked soil that will produce to suit you. Wherever your subsoil is poor, or inclined to be sandy or gravelly, however, and the surface soil is loose and hungry, the process of deepening the tilth must necessarily be more gradual, bringing up not more than an inch or so of the lower soil at each rotation of crops, and manuring that generously. Good judgment must preside over one's operations in this direction, and the particular circumstances of the case in hand must temper and govern the action. Where deep plowing is to be practiced, it is usually desirable to do it in the fall, and give the upturned subsoil the benefit of exposure to the action of the weather till the following spring. The common grub-worms and the cut-worms are a good deal disturbed and cleared out of the land by late fall plowing. But fall plowing is not absolutely requisite, and if convenience were better consulted by plowing in the spring, it may be done then with success.

You ask about kinds of plowing. This short inquiry might well demand an entire communication for a reply; and having devoted considerable thought and experiment to the science and practice of the thing, I could give you a pretty full dissertation upon it; but I must be brief. There are four principal kinds of plowing, which I will barely glance at, for convenience illustrating them with cuts, because they will help to convey to you, through the sense of sight, what it would otherwise take many words to describe intelligibly. Let me observe in passing, that the mould-board of the plow is a perfect and beautiful mathematical problem, and when understood and fabricated accordingly, it is capable, in the hands of a skilful plowman, of about as accurate plowing as these cuts represent; and furthermore, the problem, or mould-board, is susceptible of all the requisite modifications of form to meet the wants of the different soils and modes of plowing.

**SOD AND SUBSOIL PLOWING.**—This kind of plowing, as the accompanying cut indicates, and as you are, doubtless, already aware, requires two plows upon one beam. The forward or skim plow should take a depth of not more than two or three inches, dropping the sod accurately into the channel, grass side down; and the rear plow should lift the remaining depth or under soil, raising it high, and laying it handsomely over the sod or skim furrow-slice and well matched up to the previous furrow, breaking the soil well in the act, and leaving a clean channel behind for the reception of the next furrows. When a well-constructed plow for this style of work is accurately adjusted as to the line of draught, and held so as to cut a uniform width and depth, and turn up the rear



furrow-slice to meet fully the preceding one, as represented in the cut, the upturned soil is laid over in a remarkably light and pulverized condition, making a very level and finely cracked and opened seed-bed or tilth, superior to what can be done with any other implement yet introduced, and indeed superior to what the most accomplished spademan could do in grass land by hand-labor. For the deep breaking-up of sod land, I would recommend you to employ the sod and subsoil style of plowing, on all such of your fields as are free enough of obstructions, and have sufficient regularity of surface to admit of the use of the double plow. Deep plowing is done with lighter draught to the team by this mode than by any other, because you can plow quite a narrow furrow in proportion to their depth—say ten inches deep by eleven or twelve inches wide, while by other modes you would be obliged to carry at least from a third to a half more width than depth to turn the furrow surely.

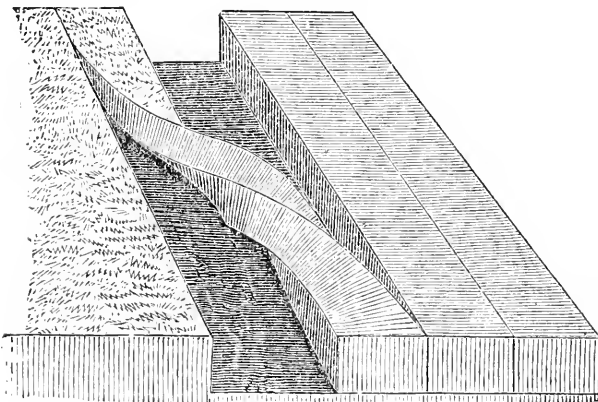
**FLAT FURROW SOD PLOWING.**—For the breaking-up of bushy, rooty or uneven pastures, or any

is too stiff and rooty with wild or swamp grasses for the safe and effective use of the double plow, the single or flat-furrowed green sward plowing is the better style. The accompanying cut shows you at a glance the proper flexure and movement of the greensward flat-furrow-slice. For perfect plowing, with the lightest practicable draught upon the team, the furrow-slice should have an exact mathematical curvature and equality of twist throughout its entire passage over—as is represented in the cut. It should be the effort and pride of the plowman to be able to adjust his line of draught, or his hitch to the plow, so as to have it meet the peculiarities of the movement of the team—no two teams hardly ever drawing a plow exactly alike—so that his plow will readily take the precise right depth and width of furrow and hold easily in it, and so that he can perfectly and instantly control, or vary the bias of the plow, to meet the peculiar lay of

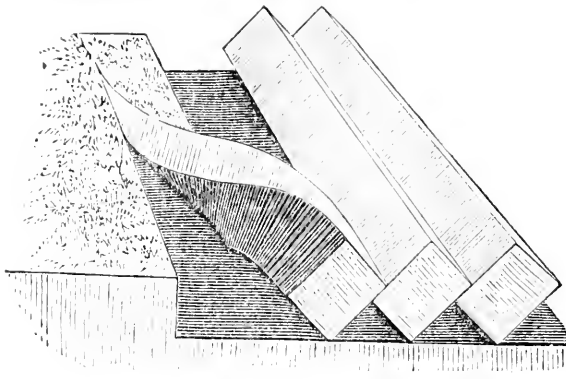
the land anywhere, and bring the furrow-slice over handsomely into its place, and preserve the perfection of his furrows. These little tricks and arts of the true plowman's trade should be learned by every one who pretends to hold a breaking-up plow, and surely, no good farmer can consider them beneath his attainment. For your rough or unsubdued sod land, you will do well to plow the flat sod furrow, using a plow of sufficient strength and capacity for a team of four horses, or oxen, when required, and carrying a depth of furrow of eight to ten inches, in good style.

**LAPPED FURROW SOD PLOWING.**—The annexed cut shows you the proper movement and position of the lapped sod furrow. This is a style of plowing much practiced in Great Britain, and in some sections of our country where the soil is a stiff clay. As the cut shows you, there is a little air space, or drain, under each furrow-slice, and the projecting angles of the surface of the plowed land present the stiff clay soil favorably to the action of the harrow or other surface-

working instrument, for the raising of a fine tilth or mellow seed-bed. To execute this mode of plowing in perfect style, the furrow slices must not be cut more than one third wider than they are deep, for if they are, they will not stand at a steep enough inclination, or rather at an angle of forty-five degrees, which is the best inclination. The usual proportions of furrow-slice among finished plowmen are about  $6 \times 9$  and  $7 \times 10$  inches. For a new country, where the land has not yet become cleared of obstructions nor its surface much smoothed, this is a difficult style of plowing to execute well, and indeed it is better adapted to an old than a

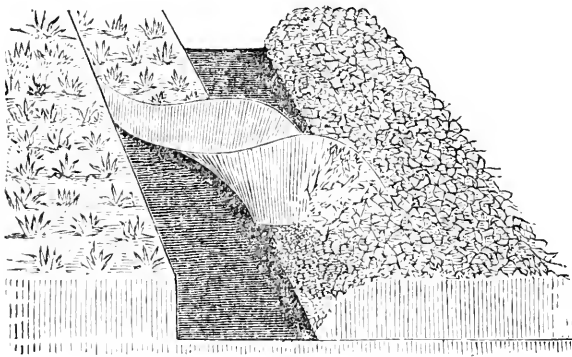


new country. For plowing more than seven inches deep, the sod and subsoil style of plowing



is preferable, even in clay land, being easier of good execution, lighter in draught, and requiring less width of slice than even the lapped style, and therefore making a finer tilth of the clay.

**STUBBLE OR OLD GROUND PLOWING.**—The annexed cut shows you the proper style of stubble or old ground plowing. The furrow slice should have a short, decided twist, be raised high in turning, for the more effectual covering in of the stubble and other trash, and be turned quickly and strongly so as to force the soil all over to an inverted position, breaking it fine in the act, and leaving a clean channel for the reception of the next furrow. This is the kind of stubble plowing you want. I have seen stubble plows at work of



such construction—raising the earth so high, turning it so forcibly, and withal, in such a sort of spray from the rear of the mould board—that you might lay down a full-sized bundle of straw or stalks, and passing by it with the plow cover it entirely out of sight with a single furrow. You can readily see on comparing the cuts, that the long, gradual, easy twist of the greensward furrow-slice is not adapted to good stubble plowing, nor is the short abrupt twist of the stubble furrow-slice at all suitable for easy, handsome and effective greensward plowing. Each requires its own peculiar form of plow to produce the best effect.

You next ask how to cultivate after plowing, and in short, what plan of improving husbandry you shall pursue to make the land productive. After the deep plowing, and just before planting time in spring, spread your compost manure upon the plowed surface and turn it in four or five

inches, deep with a light plow gauged to the right depth by a wheel on the beam. Plant the land with corn or other hoed crops. If you have leisure after harvest in the fall, and if not, then in early spring, run a heavy harrow over the field, once in a place, and straddling a corn-row each time, pulling down the corn-hills and scattering the stubs so as to facilitate their complete burial out of the way. Plow the ground preparatory to seeding it, turning it an inch or two deeper than you did in plowing in the manure, so as to bring the manure near the surface, and still with an inch or so of earth above it to protect it from loss. Then stock the land to grass, with grain. Wheat

and barley are the best grains to seed with, as the grass is less liable to be smothered by those crops than with oats. But if oats are a more profitable crop to raise, then stock with that grain, sowing, however, not to exceed two bushels of oats per acre. They will then tiller out enough from the root to grow all the seed-bearing stalks you need for a good crop, or that will be well for the young grass, and yet there will be room on the surface of the ground for the grass to get a sure foothold. I have repeatedly seen from five to fifteen stout seed-bearing stalks growing from one seed oat, where not more than two bushels of oats per acre were sown, and have raised large crops of this grain from thin seeding—the oats exceeding the standard weight two to five pounds per bushel. But however that might be, it is an important object to obtain a good catch of grass, and quite a money loss to fail in that particular.

If you would like to improve more land annually than you care to plant, and can devise means for enriching more, then plow up grass land with a deep furrow in August, manure on top of the furrows with fine rotten compost, harrow in the compost, and seed at once to grass, with or without a crop of winter wheat or rye, as may appear to you best.

If the land is not subject to standing water at any time, and is a little rolling withal, you may perhaps succeed in raising a fine crop of wheat. If a grain crop is to be taken off the land, spread a heavier coat of manure than if grass seed alone is sown. Fifteen to twenty loads of manure for grass alone, will be as good to the land as twenty-five or thirty loads if a grain crop is taken off. Sow only herds grass and red-top in the fall or in August, and put on clover early the next spring.

In connection with your abundant supply of muck, you will find your account in making all the manure you can profitably to mix with it, thus increasing the compost heaps. Study to find ways for feeding out the products of the soil upon the farm, so as to get about as good returns for them in the growth and improvement of stock, the wool, meats, dairy products, &c., as though they had been sold off for cash. Thus you will give back to the farm the manure its crops can make, increased withal two or three



times in quantity, by judicious mixtures with it of your muck and any and all other available vegetable or earthy substances which contain fertilizing qualities. Where one has capital, as you have, he will see times when he can even buy oil meal or some kinds of grain and feed it to his stock at a profit, besides enhancing the strength and activity of the manure. If such opportunities occur, you are able to take advantage of them, and thus in turn increase your own farm-products in these articles. With your capital, too, you can take advantage of times and seasons, buying or selling stock, &c., at the right time, and some years feeding more, and other years less stock, according to circumstances. Even a small floating capital to use at will in farming, is oftentimes a decided help towards success in the business, making perhaps the difference between a profit or loss on a given operation or crop.

In another communication I shall answer your remaining inquiries. F. HOLBROOK.  
*Brattleboro', Vt., March 5, 1861.*

#### EXTRACTS AND REPLIES.

##### COPPERAS AS A DEODORIZER.

In your paper of March 16th, in answer to your correspondent's inquiry in relation to his manure heap, and what remedies to prevent waste by too much heating, you recommend, if he has not other remedies at hand, to sprinkle it well with copperas water. I have formerly used copperas water by the recommendation of agricultural chemists, as a deodorizer, in vaults, also, to prevent wash to the valuable parts of manure when in a liquid state, as most farmers have their manures, more or less, exposed to rains and wet, and do not always have absorbents to take up the liquid parts in the stable. But I abandoned the use of it after reading a communication from an agricultural chemist of good authority, stating, that although copperas water was an effectual deodorizer, yet, that it changes the parts into an indissoluble salt or substance, and becomes so fixed that it is inert and worthless as a manure.

Not being a chemist, I do not pretend to use chemical terms correctly, or as he did, and I have not the communication before me. I think I read it in your paper, how long since, I cannot say; nor can I remember the author's name. I presume almost every farmer has experienced the same difficulty as your correspondent, in not knowing how to save his manure from waste by heating, and the loss in liquid manure when he could not obtain absorbents, or use it on the soil immediately. If the copperas will effect that object for which you recommend it, and not be liable to the objections raised by the writer I refer to, it would be a convenient and not expensive remedy. D. P. WALWORTH.

*Coventry, Vt., March, 1861.*

HON. SIMON BROWN,—*Dear Sir:*—In reply to Mr. D. P. Walworth's letter, which you have transmitted to me for my opinion, I would say: Copperas, (sulphate of the protoxide of iron,) will undoubtedly fix ammonia as a sulphate, but at the same time will render the phosphoric acid an insoluble compound, namely, phosphate of iron. Gypsum, (plaster of Paris,) is undoubtedly better,

but a mixture of swamp muck or peat, with the plaster, is still better; say 20 pounds of ground gypsum to 200 pounds of wet muck or peat. This preparation is a complete absorbent of ammonia, and will effectually prevent the heatings of a manure heap, and the loss of valuable volatile matters.

If muck or peat is not at hand, rotten wood, partially decayed straw and weeds will answer, and in case these cannot be obtained in adequate quantities, mix the ground gypsum freely with the manure.

As to fixing ammonia, I would remark that the more decomposable salts, especially the carbonate, is better than the sulphate of ammonia. The combination of ammonia with the organic acids of peat, namely, the crenic, apocrenic and humic acids, is one of the most valuable of manures. In the mixture I have named, we shall have both the sulphate and the organic acid compounds of ammonia, and a portion of carbonate of lime.

In a conversation some years since with Prof. Joseph Henry, Secretary of the Smithsonian Institution, he remarked that the best manures were the *unstable compounds*. Hence I remarked the value of *stable* manure.

Respectfully, your obd't servant,  
CHARLES T. JACKSON, M. D.,  
*Boston, March 26, 1861. State Assayer.*

##### SEA KALE AND ASPARAGUS.

I would like information in regard to the cultivation of sea kale. What kind of soil is necessary, and how is it prepared? How many roots would be required for a family of six or eight persons, and what distance should the plants be set? Where can the plants be obtained?

I would like information in regard to asparagus, how to prepare the ground, &c. AXV.  
*Weston, April, 1861.*

REMARKS.—The soil for sea kale should be light, moderately rich, and deep. Sow the seed in drills as early in the spring as the ground can be brought into proper condition. Let the plants stand where they came up, and have them twelve inches apart in the row. The plants are a long time in making their appearance, never sooner than six weeks, we believe. They must be protected in winter by straw or leaves.

ASPARAGUS.—Trench the ground two feet deep, and while the operation is going on, mingle manure freely with the soil. Set the roots in rows two feet apart, and one foot apart in the rows. Keep all weeds down, and the ground well spaded and light, and you will have a good bed of asparagus for a life time.

##### ITALIAN QUEEN BEES.

I wish those persons who purchased and kept the Italian queen bee last year, would report their success with them, through the *Farmer*, and let us know whether they are an improvement over our old stock. Many of us in this region would be glad to buy, if that variety is really any better than what we have. H. G.

*West Salisbury, N. H., 1861.*

## PRUNING.

The object and the true manner of pruning fruit trees are still imperfectly understood. We have expressed our own opinions so many times, that we will not now repeat them, but quote some others who are authorities in this matter. The subject is suggested to us by noticing the ground in some orchards strewed with limbs cut off late in March.

Professor LINDLEY says—"The object of the pruner is to diminish the number of leaves and branches; whence it may be at once understood how delicate are the operations the operator has to practice, and how thorough a knowledge he ought to possess of all the laws which regulate the action of the organs of vegetation. If well directed, pruning is one of the most useful, and if ill-directed, it is among the most mischievous, operations that can take place upon a plant.

"When a portion of a healthy plant is cut off, all that sap which would have been expended in supporting the part removed is directed into the parts which remain, and more especially into those in the immediate vicinity of it.

\* \* \* \* "Nothing is more strictly to be guarded against than the disposition to bleed which occurs in some plants when pruned, and to such an extent as to threaten them with death. \* \* \* If this is allowed to continue, the system becomes so exhausted as to be unable to recover from the shock, and the plant will either become very unhealthy, or will die. The only mode of avoiding it is to take care never to wound such trees at the time when their sap first begins to flow; after a time, the demand upon the system by the leaves becomes so great that there is no surplus, and therefore bleeding does not take place when a wound is inflicted."

This is one reason why we recommend pruning in June; the leaves have then appropriated the sap, leaving the wood comparatively free from it, so that where limbs are cut they do not bleed.

Prof. LINDLEY continues:—"The season for pruning is usually midwinter, or at midsummer. \* \* \* During the season of rest (winter) a plant continues to absorb food solely from the earth by its roots; and if its branches are unpruned, the sap thus and then introduced into the system will be distributed equally all through it. If late pruning (that is, spring, not winter,) is had recourse to, of course a large proportion of the sap that has been accumulating during the winter will be thrown away."

On all matters of this nature, DOWNING is received as a safe guide,—let us see what he says in relation to the particular time for pruning. He and LINDLEY, both speak of winter pruning. We will not dwell upon this, because in our severe climate, this practice is hardly resorted to

by farmers. In his "Fruits and Fruit Trees of America," Downing says: "*The best season for pruning to promote growth*, theoretically, is in autumn, soon after the fall of the leaf. Next to this, winter pruning, performed in mild weather, is best. In all parts of the country where the winters are not very severe, the roots are collecting a stock of nourishment during the whole autumn and winter. When a tree is pruned in autumn or winter this whole supply goes to the remaining branches, while in case of spring pruning it is partly lost.

"We should especially avoid pruning at that period in spring when the buds are swelling, and the sap is in full flow, as the loss of sap by bleeding is very injurious to most trees, and in some, brings on a serious and incurable canker in the buds.

"There are advantages and disadvantages attending all seasons of pruning, but our own experience has led us to believe that, practically, a fortnight before midsummer is BY FAR THE BEST season, on the whole, for pruning in the Northern and Middle States. Wounds made at this season heal over freely and rapidly; it is the most favorable time to judge of the shape and balance of the head, and to see at a glance which branches require removal; and all the stock of organizable matter in the tree is directed to the branches that remain.

In Thomas's "Fruit Culturist," an excellent work, we find the following paragraph:

"Season for Pruning.—Thinning out the heads of old trees, or heading back for grafting, may be performed in autumn or winter, and on younger trees, just before midsummer, when, the tree being in a growing state, the operator can judge better of the shape the head is assuming, and act accordingly; and the wounds are soon healed by new wood.

In his "American Fruit Book," COLE says:

"Slight pruning, in which very small limbs, or dead limbs of any size, are removed, may be performed when most convenient in any season. Moderate pruning should be done in June, July or August, though it will answer very well till December. If trees are pruned in July or August or September, the wood will become hard, sound and well seasoned, and commence healing over; and it is not material, otherwise than for appearance, whether it heals over the first, second or third year, as it will remain in a healthy state.

"We should prefer October, November or even December to the spring, which is the worst season. The trees then are full of sap, and it oozes out at the wound, which turns black and decays, like a tree cut in the spring and allowed to retain the bark. But if limbs, ever so large, are cut in August and September, the wood will become hard and remain so, if it never heals over.

"Thirty-two years ago, in September, we cut a very large branch from an apple-tree, on account of injury by a gale. The tree was old, and it has

never healed over; but it is now sound, and almost as hard as horn, and the tree perfectly sound around it. A few years before and after large limbs were cut from the same tree in the spring; and where they were cut off the tree has rotted, so that a quart measure may be put into the cavities."

We have other high authorities to the same point before us, but the length of this article already forbids our citing them. It is certainly important that, after we have been twenty years in rearing a good tree, we shall not ruin it by one or two improper prunings.

*For the New England Farmer.*

### THE MANGOLD WURTZEL.

MR. EDITOR:—In the last number of your valuable paper I was pleased to see the attention of your readers called to the cultivation of the mangold. While I agree with your correspondent from Bolton, as to the value of the root, I think I can point out a much easier and cheaper method of cultivation. And here permit me to say, that I am largely indebted to the instructions and kind personal supervision of the senior editor of the *Farmer*, while one of the Trustees of the State Reform School, for whatever success I have had in raising the mangold. This root will grow on almost any good soil, but I prefer a deep sandy loam, and the more free from weeds the better. Plow well, nine or ten inches deep, and break lumps thoroughly with the harrow and bush. Then begin on one side, and with a horse plow, make five deep furrows, as *straight* as a line, and just three feet apart. Fill those furrows with stable manure or good compost, at the rate of 25 to 40 ox cart loads to the acre, according to the strength of the manure, scatter salt upon the manure equal to two bushels per acre, turn two light furrows upon each row of manure, rake the ridges thus made lengthwise, then make five more furrows, and proceed in the same way till the whole field is finished. Sow with a machine, and be generous with the seed. This method gives just room to pass between the rows with the horse hoe, and as the plants stand higher than the spaces, this may be done when they are very small. Turn the mould from the plants first, then towards them, keep it stirring, and very little hand work will be necessary. Thin the plants to as near eight inches as possible, and let not a weed grow in the field. When the tops begin to turn yellow gather the lower leaves for the cows, and you will be well paid for the trouble. I have cultivated them in this way for two seasons, on the State Farm, and with such success that I shall pursue the same course for myself, unless some of your readers can show me a better way. I would add, the mangold is excellent in the spring of the year for working oxen, and swine eat them greedily, whether raw or cooked.

E. BRIGHAM.

Westboro', March 28, 1861.

REMARKS.—There it is, fellow-laborer, all in a nut-shell, as it were. Follow the above directions, and you will never fail of getting a good crop, and get it cheap.

*For the New England Farmer.*

### SUPERPHOSPHATE OF LIME---COMPOST.

MR. EDITOR:—What do you think of Coe's superphosphate of lime? Is it, in your opinion, a permanent fertilizer, or does it partake more of the nature of a stimulant? What should you think of a compost composed of, say, one cord of stable manure, two cords good meadow muck and two bags (250 lbs.) superphosphate? Could it not reasonably be expected that such a compost would prove to be good food for almost any crop? Should you prefer the same money value (\$5.62) of night-soil, at \$3 a load, to the superphosphate? From what little I have seen of the effects of sulphate of lime I am strongly inclined to the belief that a judicious use of it, together with good meadow muck, on our lands, would restore them to their original fertility. My first bag was purchased in August, 1855, and all but about a peck of it used on turnips, with most satisfactory results. In April, of the following year, the remaining peck was sown, by way of experiment, on a shallow meadow, or more properly run, that never had been plowed, and which produced a rather light crop of hay of poor quality. It was sown, I should judge, at the rate of about one ton to the acre. The effects of the application were almost immediately seen, and were to me truly surprising. In a short time the exact dimensions of the spot dressed could be plainly distinguished even at a distance, and the crop, I think, was more than doubled in quantity, besides the quality being increased in equal ratio. But the best of the story remains to be told. Five crops have since been taken off the piece, without applying any more manure of any kind, and the last was, in my opinion, quite equal to the first, both as regards quantity and quality—it was, in fact, a heavy crop of clover, red-top and herds grass. I might give other facts respecting its good effects on various other crops, as per my own experience, but as I took up my pen simply to get your opinion on that compost, I will stop here.

J. L. SMITH.

Winchester, Mass., April, 1861.

REMARKS.—We think a genuine superphosphate of lime is a decided fertilizer, one that will be felt for several years. The compost you mention must be valuable, and would be better, we think, than the same money's worth of night-soil at the price you name.

PEANUTS.—The Peanut is cultivated in Georgia, Alabama, North Carolina, &c. It is planted in ridges about three feet apart, and the vine stands about a foot in perpendicular height. The stems shoot out in all directions from it for about fifteen inches around. These runners have joints about an inch and a half apart; and at each joint a strong root strikes down into the ground about two inches deep; at the end of this root the peapod is formed and comes to maturity. Some farmers cover these lateral vines with earth, while others leave them bare all the time. It is not agreed which is the better mode. When ripe, one bunch of vines will have from one to two quarts of peas. One acre will produce from thirty-five to fifty bushels of peas.

## EXTRACTS AND REPLIES.

## GRASS SEED—TURNIPS—CARROTS—HORSE AIL.

When is the best time to sow grass seed? There was a general complaint among farmers the past season, about their grass seed not catching well, on account of the dry weather. I would like to know which would be the surest way on a piece of land that was sown down to grass seed last year and did not catch,—to plow it up and sow with grain, or sow it on the land?

Are turnips a profitable crop? I have tried the ruta бага turnip for some years past, and I think I can get more profit on the same number of rods in turnips than any other crop, but I cannot raise half a crop of anything else the next year with all the manure I can produce. If they are as exhausting to the soil as it appears, I would like to know it.

## TURNIPS FOR CATTLE.

I would like to inquire if turnips are good for cows that give milk, and if you can fat cattle on them?

## CARROTS FOR THE HORSE AIL.

I have a young horse that I have kept frequently on hay, grain and potatoes, and as the horse ail is about this spring, I noticed a week ago, that my horse had it coming on; he had a cough and all the other symptoms of it; I went to feeding him on carrots and his cough ceased and I have not seen any symptoms of it since. If carrots will prevent it, I would like to know it.

I have, also, a young horse that I do not work that is troubled with worms. If you can tell me of any cure for them, you will oblige me very much.

Vermont, 1861.

S. HYDE.

REMARKS.—It will be best to plow the land, manure a little if possible, and sow grass seed with some grain.

Many people think turnips a profitable crop—we have no doubt they are so, when skilfully cultivated. They are excellent for cattle, making a grateful change from dry fodder. They should be fed to milch cows sparingly, and always just after they are milked. Ruta bagas are considered an exhausting crop, and should be followed by some hoed crop well manured. We have no doubt but carrots would be highly useful for a horse sick with "horse ail," but have never known it prescribed as a medicine.

For the other trouble you mention, give the horse a gill of clean wood ashes in cut feed, twice a week for two weeks.

## PINE LEAVES AND SEA-WEED.

I would be pleased to know if the debris of our pine forests is a suitable material to form a portion of the manure heap or compost heap.

I have used it myself for eight or ten years as a bedding for my horse and cow, and find it a good absorbent and easily decomposed, but some of my neighbors think the pitchy substance injurious to the growth of grass or other vegetables, and prefer the use of sea-weed. I would like to know its chemical components, and will furnish

any necessary quantity of either or both for that purpose. My own experience leads me to conclude the pine needles to be decidedly the best, and as there is any quantity of this material in our vicinity, it would sensibly benefit our farming interest to know the facts in this case.

NATHAN BRIGGS.

REMARKS.—We know of no means of giving you the precise facts you desire. We should certainly use a large amount of pine leaves, if we could get them cheaply. What the comparative value of such leaves and sea-weed is, we have no means of knowing.

## VERMIN ON COLTS—SAWDUST AS BEDDING.

Will you, or some of your numerous subscribers to the *Farmer*, inform me of the best method to exterminate lice upon colts. I have tried various remedies, but have not as yet been quite successful, although I have to some extent. Also, will you inform me what your opinion is as to the practice of using sawdust for bedding for cattle. I have used it, more or less, for two years past; but I find my manure heaps heat badly, and unless I take pains to spread it about often in my cellar it is apt to burn. Will it injure the manure materially if it simply heats but does not burn?

A SUBSCRIBER.

East Princeton, April, 1861.

REMARKS.—For your colt try the new preparation of tobacco, sold by Fisher & Co., 23 Central Wharf, Boston.

Sawdust is undoubtedly useful as bedding for cattle. A slight heating accelerates decomposition without at all injuring the manure.

## GUANO AND COMPOSTS FOR GARDENING.

Having been a reader of your valuable paper for a number of years, and having undertaken for three years past to do something at gardening, and calculating to continue in that line of business, I wish you would inform me whether the Peruvian guano is considered a profitable fertilizer for a garden. Is it good for the raising of onions, beets, carrots, cabbages, and other kinds of garden sauce? If so, how best applied?

S. Acworth, N. H., 1861. JOSEPH BALL.

REMARKS.—We have no doubt that Peruvian guano may be profitably used, if it can be purchased for \$40 per ton. At the present price, \$65, we do not believe it can be. You may find several recipes in the monthly *Farmer*, since January, for making special composts for the garden, that will be excellent. Bridgman's Gardener's Assistant will be a good book for you.

## CHINESE SUGAR CANE.

I wish to inquire if the Chinese sugar cane can be raised in this State, and if so, would it be profitable? I have been in Wisconsin for the last five years, where I saw it raised, and the process of making molasses from it; they planted it about the 20th of May, and by the first of September it was ready for the sugar mill. They

boiled it in iron pans, and the molasses was some bitter. How can it be made so that it be clear and sweet? N. CAULKINS.

*E. Leupster, N. H., 1861.*

REMARKS.—When molasses is selling at one dollar per gallon, it may be good policy to raise the Chinese sugar cane in New Hampshire, but not before. Raise a good crop of wheat, and with a portion of its proceeds purchase what molasses you need at less than 40 cts. per gallon. Your seasons are not long enough.

#### FOR SMOOTHING SEEDED LAND.

I would like your opinion through the columns of the *Farmer* as to whether it would be profitable to buy some of the concentrated manures—such as the poudrette or superphosphate of lime, and if so, which would be the best to put in the hill for planting corn, where the soil is gravelly, pine and hard wood upland, with clayey hardpan bottom.

Having noticed descriptions of several modes for smoothing ground when seeded, I will give you a description of mine. Take two pieces of plank four feet long, scarf off like a sled runner, place about four feet apart, and cover the bottom with boards six or eight feet long, according to the smoothness of the ground it is to work on. Make two holes through one board near the planks on the crook, and through the planks, to pass your chain to hitch to like a spread chain, and it is ready for use. To use it, hitch a pair of horses to it and get on near the hind part, and if your ground is suitable to seed it will soon be as smooth as a house floor after passing over it.

*Lyman, N. H., 1861.*

GRAFTON.

#### ONIONS AND PEAS.

Will you inform me through your paper of the best method of planting onions? Will peas do well planted early in the following manner; plant about two inches deep, and as soon as they begin to break ground cover them with fine earth one or two inches deep, again, and so on until from six to eight inches deep? G.

*Fairhaven, April, 1861.*

REMARKS.—Onions need a rich, fine soil, though not so deep a one as for carrots, &c. Sow as soon as the ground is sufficiently warm and dry, in rows fifteen to twenty inches apart, and wider, if you cultivate with a horse. We have never known such an experiment with peas.

#### HOW ONIONS ARE PLANTED.

At a late meeting of farmers in Boston, an intelligent farmer from the Western part of the State inquired of me how onions were planted to prevent their becoming skillions—that is, plants with large tops and no bottoms. I told him that little or no inconvenience of this kind was experienced in this vicinity. In the first place, the growers of onions raise their own seed, and they are careful to select for this purpose sound onions of the size and form they wish to grow. These are set out usually on strong land, and carefully looked after when growing,

and when ripe the seed is gathered and dried and secured for use—always being careful that no foul seed of any kind shall be mixed with it. The earliest work of the spring is to prepare the ground for onions, the same having been fully manured and finely pulverized. These things having been attended to, there is no danger to the crop except the maggot.

*South Danvers, March, 1861.*

#### GLUE FOR BORERS.

Can you give me any information relative to the protection from borers offered to fruit trees (the apple) by a coating of dissolved glue? I have been informed that it would effectually protect the apple tree, without injury to the tree—still, before risking my trees with a coating, I am anxious for better authority than I am already in possession of.

*Brandon, Vt., 1861.*

REMARKS.—Have never known such a remedy tried. Would not the rains soon wash off any coating of glue?

#### TWELVE-ROWED AND EIGHT-ROWED CORN.

Mr. Basset, in a late paper, has an article headed, "12-rowed and 8-rowed corn." Some have said that the 12-rowed is better and contains twice as much flour as the 8-rowed. I do not think so. The 12-rowed is not of as good quality, does not contain as much nutriment as the 8-rowed, and when ground there is more hull in the meal and it is not as sweet as the 8-rowed.

*Fairhaven, 1861.*

A CONSTANT READER.

#### WHAT APPLE TREES SHALL WE SET?

Would it not be well for you to make a selection of apple trees for this latitude, of such as would be best for us to raise? It certainly would be very acceptable to your numerous readers in this section. We want to know what are some of the best sweet, summer, fall and winter apples.

*Westfield, April, 1861.* C. L. INGERSOLL.

REMARKS.—We find in *Hovey's Magazine* for April the following list of apples recommended by a correspondent of that journal as suitable for Worcester county. They are probably equally as well adapted to any portion of the State south of that county. They are numbered about in the order that they come into eating.

- |                   |                         |
|-------------------|-------------------------|
| 1. Red Astrachan, | 7. Leland's Spice,      |
| 2. Bough,         | 8. Hubbardston Nonsuch, |
| 3. Williams,      | 9. R. I. Greening,      |
| 4. Porter,        | 10. Ladies' Sweeting,   |
| 5. Gravenstein,   | 11. Baldwin,            |
| 6. Fancuse,       | 12. Roxbury Russet.     |

We suppose by "Bough," the writer means the *Early Sweet Bough*, which ripens early in August. To the summer apples we should add, the *Early Harvest* and *Sops of Wine*.

To the fall apples, the *Fall Pippin*, *Pumpkin Sweet*, *Maiden's Blush* and *Russet Sweet*, the latter one of the finest baking apples that ever grew. It is of rather more than medium size,

has occasional warts, the ends of which are smooth—that is, are not russet like the other portions of the skin. It is a juicy and excellent dessert apple, for those fond of sweet apples, and when baked has a thin skin, and is really delicious.

Among the winter apples we should recommend the *Dawson's Winter Sweet*, *Minister*, *Northern Spy*, *Winter Green Sweeting*. We are now using—middle of April—the Northern Spy and Winter Green Sweeting every day, and find them all that ought to be expected of a late apple. While the best Baldwins are slow at \$1.50, we have known sales of the Northern Spy at \$4.

There are not half enough *sweet* apples used, as no food seems to us more profitable or healthy than good baked sweet apples. They ought to take the place, from the first of March to the first of June, of tons of the flesh that is consumed by our people—and especially so with children. We do not believe that more than one family in fifty in the State has a barrel of sweet apples in the house to-day, if, indeed, they have them of any kind! This should not be so.

## HORTICULTURAL HINTS.

### THE CLIMBING PLANTS.

No class of plants are more useful in the hands of the skilful gardener than the climbers. They possess almost miraculous powers, transforming any unsightly out-building into an object of real beauty. No good gardener will have any bare board fences about his premises,—all are wreathed and festooned, and made gay and graceful. Then for covering cottage verandahs, what can equal this class of plants? They put to the blush all the expensive work of the architect, and the builder, and make the poor man's cottage appear more elegant—possessing more of nature—more of quiet grace—than the palace of a prince. For this purpose, the hardy varieties of grape vines are very useful.

The *Virginia Creeper* is an excellent climber, and although a native of our own land, much more popular in Europe than with us. Its leaves are digitate, of a dark rich green in summer, and becoming of a rich crimson in the autumn. It throws out little roots at the joints, by which it fastens itself to anything it touches.

The *Honeysuckles* we have in great variety, and everybody loves them, though we are sorry so few show their love in a practical way.

The *Periploca Virginian* or *Silk* is a rapid growing, fine climber, and will twine itself round a tree or any other object for twenty or forty feet in height. The foliage is bright and glossy, but the flowers are brown and not showy.

The *Chinese Wistaria* is one of the most rapid growing of all climbing plants, after it gets a fair start. Sometimes, for some unaccountable reason, it refuses to make any material growth for a year or two after being planted, but all at once takes a start and makes a splendid growth, throw-

ing out shoots ten, fifteen, and twenty feet in length, in one season. It commences blooming early in June, and a large plant will be literally loaded with thousands of rich clusters or pendulous racemes of delicate, pale blue blossoms, so numerous that the plant seems to be a floral wreath. The racemes are from ten to twelve inches long, and well filled with delicate sweetly perfumed flowers. The foliage is abundant, and of a pleasant lively green. It succeeds best in a rich deep loam. It does not flower until the plant gets strong, and the older the plant the more freely it seems to flower.

The *Climbing Roses* are now to be had of almost every variety of color, and should be extensively planted.

The *Bignonia* or *Trumpet Flower* is a magnificent climbing plant, producing large trumpet-shaped climbing flowers with something of an orange tinge, and of great beauty. They are produced in clusters. A good plant trained to a pillar or trellis, when in flower, presents a most splendid sight.—*Exchange*.

### FLOWER CULTURE—ASTERS, &c.

The cultivation of flowers is becoming more interesting of late than formerly, and well it may, for great improvements have recently been made in producing new and choice varieties, which far excel in form and beauty those of former times. It is especially so with the family of Asters. We have grown many varieties the past season, such as "*Truffaut's New French Paeony Flowered*," "*German Quilled*," of all colors and tints, "*Ranunculus*," "*Paeony Perfection*," and "*Negley's Giant Emperor*," extra large, and every variety of colors. We planted a bed, some 6 by 8 feet, containing all of the above varieties, mixed, and we were highly gratified with the result. We had a splendid bed of flowers, and think we had a finer display than to cultivate each variety separate.

We had specimens three inches in diameter, and there were all sizes from these to the half globe, an inch across. They were of all colors, (except yellow,) from dark purple to deep red, rose, pink, lavender and white, with all the intermediate shades. Instead of the single ray of the old sorts, the entire centre was filled with petals or quills beautifully tipped with various colors. We have with much care preserved a quantity of seeds of the above mixed varieties, and anticipate a more beautiful display the coming season.

THE GREEN CENTERED HELIANTHUS.—This new and beautiful annual attains the height of the *Dahlia*, displaying a profusion of flowers of a bright *golden border*, with a *green centre*, with a fine velvety appearance, in the form of a half sphere—some 3 to 7 inches across. One plant will produce from 10 to 25 blossoms at one time, and will last in perfection ten or twelve days. This new and improved species of the *Helianthus* needs only to be seen growing in all its splendid beauty to be appreciated—the flowers truly represent a "golden cushion, fit for a royal crown at a grand coronation of Flora." We deem it one of the greatest of the recent acquisitions to our annual flowers. Being easy of culture, it should be grown by all who are fond of flowers.—*Country Gentleman*.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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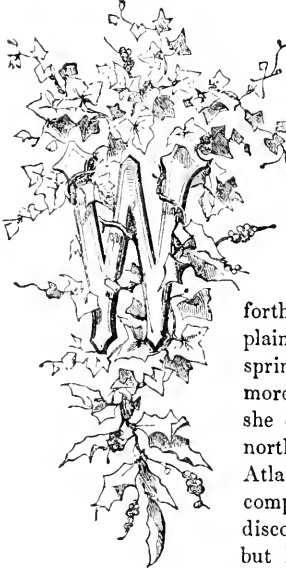
SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

THOUGHTS FOR JUNE.

Dost then the green earth teem with gladness?  
Has Nature dropt her robe of sadness?  
Do the swains pipe;—the flocks rejoice;  
The mountains echo Bacchus' voice;—  
The mariners their sails unloose;  
The bees distil their luscious juice?  
Has Spring inspired the warbling throng?  
—And can't the poet make a song?

MELEGAGORS SPRING.



I think the bard scarcely needs an apology for his strains, at this most glorious and jubilant season of the year. It is true, the bard whose language we have quoted above, breathed forth his song on the plains of Syria, where spring comes with a more elastic step than she comes to us in our northern home on the Atlantic slope of our comparatively newly discovered continent; but her smiles are no

less exhilarating because the sunny days come slowly, alternating with storms and tempests, and the fair JUNE lingers, as it were, tardily in the lap of May. Flowers would not possess half their sweetness, were it not for their frail and perishing nature. The love of the beautiful is inherent in our nature. It is this which causes us, as children, to delight in the varying colors of the soap bubble, and its buoyancy as it floats on the surface of the stream, beautiful even as it is evanescent. And how often have we, the wisest of us, bowed in adoring homage before a

lovely face, or a faultless figure, and felt that it was for the appreciation of such fascinating and wondrous developments of loveliness, that our most noble faculties were conferred upon us by HIM whose hand dispenses goodness, and who formed us for a life of usefulness, as well as for happiness and delight.

When we look out upon the wide world, and permit our gaze to rest upon the great mass of varied and ever varying life that pulsates without the narrow circle of our own selfish interests, we are often inclined to doubt whether, in the exorbitance of our own self-love, we have not overlooked, or neglected, more important duties than we have performed. From that region, there often comes to us a voice of upbraiding, which makes itself heard, and which recalls us to ourselves with an awakening sense of our obligations, and of the inhumanity, if not of the actual criminality of longer disregarding them!

At such a moment, under the twilight skies of the radiant and odorous JUNE,

“The friendships old and the early loves  
Come back with the Sabbath sound of doves  
In quiet neighborhoods,”—

causing us to realize that it was not all a dream—an illusion of the senses, where the heroine of “Jane Eyre”—one of the most exquisitely conceived and beautifully executed things in modern literature—seemed to recognize the vision of “Rochester,” calling to her from the mysterious darkness of night, and reminding her of much that her selfishness counselled her to forget. A man is never more a man, than when he bares his heart to the sweet and gentle influences of nature; never more truly religious, or more completely happy, than when, by extending the limits of his own little world of self, he embraces within its circumference a portion of the world without. This is the act of philanthropy—of that kindly charity which “hopeth all things,” and is

ever ready, in its zeal, to discover and succor the needy and distressed.

"In the days of Scorn, the storms of Hate,  
In the darkness of Hope deferred full late,  
Through days when the world shows desolate,  
Must sleep the good deeds thou hast done;  
Faithfully labor—patiently wait—  
Thy work shall see the sun."

JUNE is a beautiful month; for the farmer, it is also a busy one. The numerous crops on which he relies for sustenance are now vigorously springing, and calling for his sustaining hand. In the field and garden, his most unremitting attention is required, and there, among the beautiful forms of the vegetable and floral world, he will find affluent sources of enjoyment:

"Springs whence he may drink uncloyed,  
The nectar draught that Heaven gives,  
And feel the pleasure unalloyed  
Of nature's courts," &c.,

without the curse of weariness, for it is a property of even her blandest blessings that they never weary by repetition, or produce disgust in the minds of those who are qualified to appreciate and enjoy them.

——Beautiful to view,  
Month of my heart! thou dawnest here."

The farmer who attends strictly to his business, may not, perhaps, become wealthy; but an ample competency of the goods of life is *certainly* within his reach. But, in the language of Tristram Shandy, "Riches are not the chief object of rational pursuit, nor by any means the most important reward of industrial effort." There is, perhaps, no proposition in ethics more susceptible of demonstration than that most accumulations of wealth, whether in the hands of individuals, or of corporations, tend to popular corruption and the depravity of morals. This is likely to be the consequence in a majority of cases; but in the case of the farmer, vast wealth is rarely, if ever, attained.

In the language of EVERETT: "His glory is to create and construct. Other men may fetch and carry, and exchange; all rests at last on his primitive action. He is close to nature. The food which was not, he makes to be. All nobility rests on the use of land. Tillage is the original calling of the race; many men are excused from it, yet if they have not something to give the farmer for his corn, they must return to their planting. The farmer stands nearest to God, the first cause."

Occupying a position of so much honor and importance, how necessary that he should realize its many duties, and by a proper exercise of his heaven-conferred attributes and faculties, endeavor to secure their performance.

#### FAT SOWS FOR BREEDERS.

John Skaats, of Alexandria, N. Y., has successfully raised pigs from pork-fat sows, for the last fifteen years, and his experience is, "the fatter the better." The correctness of this principle is doubted by the editor of the *Genesee Farmer*, while it is fully endorsed by a writer for the *Valley Farmer*, who adds the following remarks:

We deem the system practiced by Mr. Skaats as the only correct one in breeding swine, and it is precisely the one that we have always practiced. Sows should never be bred till they are at least 18 months old, nor a boar under 12, or better 18 months old. Up to this age sows should not be allowed to get excessively fat, until they are with pig, and then they can hardly be too fat, with prudent keeping. Pigs, when they first come from such sows are usually small, but the sow has a store of flesh which she will impart to them in an increased flow of rich milk, and the pigs will start off unimpeded, and, with proper care, even on Western farms, may attain proper size for the knife (say from 250 to 350 lbs.) at 12 or 18 months old. It is important that none but the best sows be reserved for breeding, and it is equally important that each sow bring two litters a year. When the pigs are about two months old take them at once from the sow. The sudden check in the secretion of milk will cause her *at the end of four days* to come in season. She is then reduced somewhat in flesh, and she will not fail to breed. Then continue generous feeding as when she was giving milk, and she will again become fat. Continuing this course, with properly selected sows, two litters of pigs may be regularly had within the twelve months, and up to five or six years the sow will continue to improve as a breeder. With suitable crosses and well selected boars, the breeds of swine may be constantly improved; whereas, by the ordinary management of ninety-nine hundredths of the Western farmers, the best breeds will constantly deteriorate.

For the *New England Farmer*.

#### SHEEP AND DOGS.

Sheep raising is considered one of the most profitable branches of husbandry in New England. But no one dares to engage in the business, because the country is overrun with dogs, suffered to go where they please. Dr. Loring, of Salem, justly said, at an agricultural meeting in the State House, "It is a burning shame that we cannot raise sheep in Massachusetts by reason of dogs." It is true that we cannot keep sheep in safety; and our farmers are deprived of a great source of profit by it. It is pretended that our wise legislators have provided a law, good and strong, to protect the farmer against the ravages of dogs, if put in force, and oblige the town to pay the damages.

This law is not worth the paper it is written on, so far as giving safety to the sheep is concerned, as it does not meet the demands in the case. So long as there are five thousand dogs kept, and suffered to run at large, in Essex county, there will be no sheep raising in the county. Who would invest his money in sheep, and turn



them into his pasture to be the sport of dogs, and in a few days be grieved and vexed by finding the mangled carcass of some of his most choice lambs, or ewes, others wounded, and the remainder frightened, and fled to parts unknown? After such scenes have been enacted among them, the fences offer but little resistance to their flight, and they might as well be put under the charge of the drover, and marched off to the shambles at once. The law that awards the damage done to our sheep, is not the thing. We wish to have secured to us the privilege to keep our sheep, for the profit in the business. The law must prohibit dogs from running at large, to secure a safeguard to sheep husbandry.

Such a law is demanded. It would injure no man. If our fancy men wish to select their companions from the canine race, and keep company with dogs, let them provide safe quarters for them where they will do no one any damage. If we keep a pig, or a cow, we must keep them within our own inclosure. But dogs may be kept without number, to go wheresoever they list; and thus prevent one of the most profitable and interesting branches of husbandry in our country. This ought not to be. If I wish to keep sheep, I must flee back to the hills of Vermont, or New Hampshire, to get out of the way of the dogs. It is not entirely safe there; but altogether out of the question here. Where is our remedy? We want something done in this direction.

A. PHILBROOK.

*East Saugus, March, 1861.*

#### EXTRACTS AND REPLIES.

##### SOWING HERDS GRASS SEED WITHOUT A GRAIN CROP.

I saw an inquiry in the *Farmer* whether herds grass would do well without a grain crop. I have sowed herds grass in this way two years, and raised a ton and a half, or two tons to the acre, on ground that had not been manured. It wants to be sowed the last of April, or the first of May. It will be in the blow the last of August. I have sowed Hungarian grass the past season. I sowed one piece of Hungarian, and stocked with herds grass. It yielded three or four tons to the acre. The herds grass took well; headed out a good deal of it. I sowed a piece of wheat and stocked it; it did not catch a quarter as well.

CHESTER S. ALLEN.

*Goshen, Vt., April, 1861.*

##### SNOW ON A CRANBERRY MEADOW.

Will cranberries succeed on a low, muck swamp, where the snow lies until the first of May, and does not blow off in winter? Will the snow lying on so long answer the purpose of flowing?

WILLIAM F. GIBSON.

*Ryegate, Vt., April, 1861.*

REMARKS.—If the snow falls upon the plants before severe cold weather sets in, remains until the first of May, and does not settle down into ice, we think it must perfectly protect the plants through the winter. This will not, however, render flowage unnecessary in June, to kill the worm, if the plants should be attacked by it.

##### CRANBERRY PLANTS.

What time is the best to transplant cranberry plants? Where is the best place to procure them? How long will it do to keep them out of the ground, as I want to carry them about eleven hundred miles? What is the general price per hundred? N. P.

*North Providence, 1861.*

REMARKS.—Transplant in April or May, or even later, if they were taken up before the leaves had started. They abound in this State and Connecticut, and can be procured in many places. We cannot refer you to an individual who makes it a business to sell plants. If the plants are well packed in moss, and kept damp, they may be safely kept out of the ground for several weeks.

##### ABOUT DISSOLVING BONES.

In the March number I saw two statements for dissolving bones; one with ashes, and the other with sulphuric acid. I would like to know the cost of sulphuric acid per pound, what the mixture is worth after being prepared, and what it is worth dissolved with ashes. I should like to know the value of carrots, mangolds, round and Pennsylvania turnips, compared with potatoes, to feed to hogs in the winter.

*Hardwick, Vt., April.*

INQUIRER.

REMARKS.—Sulphuric acid sells at three or four cents per pound. We cannot give you the comparative values you inquire for.

##### A GOOD WHEAT CROP.

Horace Collamore, Esq., of Pembroke, Mass., raised the last season fifty-four bushels of prime Java wheat on one and a half acres of land.

*For the New England Farmer.*

##### ARE OATS INJURIOUS TO SHEEP?

MESSRS. EDITORS:—Perhaps I cannot better answer this inquiry, made by a correspondent in a late number of the weekly *Farmer*, than by giving a brief account of my method of feeding sheep at this season of the year. It is very essential that sheep should receive extra care and keeping during the months of March and April, or until the growth of grass; especially such sheep as are expected and desired to raise lambs. It has been my practice to feed sheep upon oats, or a mixture of oats and beans in the proportion of two and one. The amount of feed is from ten to twelve quarts of oats, unground, to thirty-three sheep per day; or six or eight quarts of the mixture to the same number. I commence feeding about the first of March, and continue it until the sheep leave the barn. This amount of grain, together with a sufficiency of good hay, I think sufficient.

The result is, my sheep are kept in good condition; the lambs come' strong and remain so, attended with no losses, & properly sheltered and attended to, of sheep' r lambs. Such has been my experience. Should be glad to learn the experience of others.

I. W. SANBORN.

*"The Meadows," Lyndon, Vt., 1861.*

*For the New England Farmer.*

### STRAW BEE HIVES.

Bee keepers want a straw hive adapted to improved bee culture. Mr. Langstroth, speaking of the best materials for hives, says: "Straw hives have been used for ages, and are warm in winter and cool in summer. The difficulty of making them take and retain the proper shape for improved bee-keeping, is an insuperable objection to their use." This is no longer so, for I have succeeded in getting a form adapted to the movable frames; but as it is not at all likely that I have the best form—not being gifted in making improvements in bee-hives—I want some ingenious Yankee, that is now wasting his energies on worthless patent contrivances, to use them in another direction, where they may be of some benefit.

That straw is a desirable material for a bee-hive, is indicated by their uniformly sending out earlier swarms, and of other advantages in consequence of their doing this, we have much proof.

Several years since, with a partner, I bought twenty-two straw hives; these, with forty others, made of wood—equally as populous, and as well-stored—were placed in one yard. As the swarming season approached, these were found to contain the strongest colonies. The first five swarms were from them, and when seventeen had issued, only four were from the others. All but two cast swarms, and several of them two or three, while full one-third of the wood hives failed to swarm at all through the season. This shows a decided superiority. As long as these stocks lasted, they continued to throw out earlier swarms. Others who have used them, all testify that they are better in this respect than wood hives. I can safely take the average time at ten days earlier. The swarming season is generally the time when bees get most honey. A colony that would collect three pounds per day, during the honey harvest, would be just thirty pounds better off at the end of the season. This amount stored in surplus boxes, and sold at 20 cents, would be in value as much as a good swarm of bees. In many seasons, we have a full yield of honey for only a few days. A swarm located at the end of that period might fail to get even winter stores, when ten days earlier would have made all safe. It is unnecessary to offer proof that early swarms are better than late ones—all admit it. Yet when I have shown that straw hives *will* give us earlier swarms, the question at once arises: If straw hives are so very valuable, why have they been so generally discarded? They were used almost universally eighty years ago. They were, soon after that time, put aside on account of the moth, which, when first introduced into our country, exceeded in its ravages anything of the present day. Its nature and habits were less understood—it seemed to be new to the bees as well as man, they did not know how to expel it—it was found enshrouded in its cocoon, in the interstices of the straw, and was supposed to have been nourished, and bred there. It is supposed by many at the present day, that it is bred in the cracks and flaws about the hive, instead of among the combs, where it usually does all its mischief before it leaves to spin its cocoon. Hives made of wood, afforded fewer facilities for the worm to

hide away, and were used in preference on that account. But this is not an objection at the present time. The moth does not affect bees in a straw, any more than in a wood hive.

Another objection is in the shape they have given the straw hive; the round conical form gradually terminating in an obtuse point, which gives no chance of using surplus boxes. As the only inducement in bee-keeping with most people consists in the surplus honey, a hive affording no facilities for obtaining it must of necessity be discarded. When the colonies that we had in these hives failed, we did not restock but few of them on that account. I know one bee-keeper who still adheres to them, putting early swarms and prosperity of the bees, before any advantages of box-honey. I know another who expended some \$300 in constructing hives. He conceived the superiority of straw to be in the greater warmth afforded, and to obtain the same end with wood, he made them double, enclosing a dead air space between the outer and inner hive. Many others have attempted the same thing. But all these efforts are only partially successful. As soon as bees are enclosed with an air-tight covering, to secure the warmth, the moisture accumulates, and their combs mold, if the weather is moderate, or if very cold, will be covered with frost. If an opening is made to secure upward ventilation to carry off this moisture, a part of the animal heat goes with it, and the gain by the double enclosure is very trifling. The straw hive will absorb moisture as generated, and the upward ventilation may be avoided, and save to the bees the warmth they have generated. The advantage seems to be in the *material*, not the hive or the manner of making it. That the best material is straw, I think is fully shown. Now we want the best form adapted to our use. When there is a demand, there should be a supply. If nothing better turns up than I have, I shall give a description of that some day. I have already got bees into it for a trial this winter.

*St. Johnsville, N. Y.*

M. QUINBY.

*For the New England Farmer.*

### CONCENTRATED MANURES.

MR. EDITOR:—Much has been said and written within the few past years, on the value of concentrated manure, guano, phosphates, &c., and I cannot doubt that in a multitude of cases, the money expended for them has proved a remunerative outlay, yet I strongly suspect that if these highly recommended fertilizers which have been purchased by the farmers of this State, could be traced to their results, we should find, that, like lottery tickets, too many of them have drawn blanks.

My own experiments have helped me in coming to the conclusion, that the same expenditure in collecting materials from our own premises to act as absorbents, and swell the compost heap, would have proved a more profitable investment. Look at it! Take the article of guano; two bags, at 150 pounds each, would cost, delivered, at least ten dollars. These two bags would just about fill a common flour barrel. Now let any industrious farmer expend five dollars in labor with his own help and team in procuring swamp muck,

if within reasonable distance, and five dollars more in collecting brakes and other materials from the pasture, road side or wood lot, and I think he will have a pile by the side of which the barrel of guano will be small in size and in value, and the ten dollars be kept nearer home.

While ammonia is the principal element of value in concentrated manure, manures from the stable and hog-yard contain more of the requisite food for plants; have more bulk and other important qualities for most of our soils, rendering them more pervious, and susceptible of atmospheric influences.

I believe that many kinds of concentrated manure will yet find a permanent place among the farmers as reliable auxiliaries, but they will be like the mint, the anise and the cumin, compared with what he may manufacture on his own premises.

I am about making a compost, and wish some advice from you whether you think it will be strong enough to put half a shovelful in a hill for corn?

I propose to take 100 bushels of swamp muck that was dug last June, 25 bushels of rotten manure, five bushels of hard wood ashes, four bushels of hen manure, and mix them all together and then commence at one side, and shovel back a layer. To this I will add half a barrel of urine and night soil. Then dissolve five pounds of copperas to the barrel of water, and wet it down, and so on through the pile, till I get on five barrels. Will it be necessary to make it under cover? shall I add lime to this compost? will it do any hurt to put sink water and soap-suds into my vault?  
B. F. CONANT.

*Lyme, N. H., 1861.*

REMARKS.—Such a compost should be made up a fortnight at least before it is wanted, and should be made very fine. Instead of "half a shovelful," we should think a pint to a quart would be an ample amount. The four bushels of hen manure are nearly equal to as much guano. Try it, however, in various quantities, and let us know the result. It will be best to make it under cover. Lime will not be necessary. Soap-suds in the vault will be good, if the vault is tight.

*For the New England Farmer.*

#### HOW TO CURE A SPAVINED HORSE.

I have a fine mare, which, three years ago, became very lame from a bone spavin on the inside of the left hind leg. After pretty hard driving for several days, she became so lame that she was unfit for use. The spavin was very tender, and she rested the foot constantly on the toe when she stood. I took her to the blacksmith and directed him to put on a shoe without any toe cork, and with blunt heel corks two inches long. She immediately travelled much better, and when she stood, rested the foot on the toe and heel corks, thus relieving the contracted cord from the strain to which it had been constantly subjected. In a short time the inflammation and tenderness subsided. The swelling abated, and she travelled very well. She wore off the inside

cork faster than the outside one, when she began to be lame again. I then had the shoe re-set and the corks made of the same length, and she soon became well. After a few weeks I had the corks shortened a little, and the next time she was shod, a little more, but I still have her wear heel corks an inch or more in length. There is a slight enlargement of the bone where the spavin is seated, but she performs hard service, and is not at all lame. Several of my neighbors have applied the same remedy, with equally good results, and I think that a little thought and observation will satisfy any one that this is the appropriate remedy. The cords attached to the part where the enlargement is seated, become inflamed and contracted, and raise up the heel from the ground. When the horse brings the heel to the ground the cords are strained, and become irritated and inflamed. The long corks keep the heel raised permanently, and thus prevent the cords from being strained, and allow the inflammation to get well. Some enlargement and a slight degree of stiffness may remain, but seldom enough to affect the gait. I consider the discovery of so much importance, that I wish the owners of horses to know it, as I believe that many horses that are now considered of little value may by this simple means be restored to a serviceable condition.

*Wilmington, 1861.*

LEVI REYNOLDS.

#### EXTRACTS AND REPLIES.

##### A LARGE HOG.

I recently saw the magnificent porker raised by Hon. R. S. ROGERS, on his farm in South Danvers. I am glad to learn that something besides onions can be grown here, as the maggot seems to have put an effectual veto on this delicious vegetable—always saving its smell. This hog was bred in Chester county, and was selected for the superior character of the breed. He was nearly three years old; weight alive, about 1108 pounds, weight when dressed, 1000 pounds. He has been fed with the best the farm afforded, always having as much as he would eat.

I asked Mr. R. as to the profit of raising such an animal; he replied that he had not found an opportunity to state the account, the most he cared about him was "to see him grow." I can not doubt that the farmer who thus deposits his corn, will find his account, either in the growth of the animal, or in the manure he makes—if he be a working hog.  
J. W. P.

*March, 1861.*

##### CULTURE OF ROOTS.

I have had but little experience in farming, and would like to ask, through your valuable paper, what I had better plant this spring for roots, to feed to cattle and sheep next winter. Also, if roots are more common than grain?

A NEW SUBSCRIBER.

*Romney, N. H., April, 1861.*

REMARKS.—Mangolds and flat turnips are cheaply raised, and are excellent for sheep and cattle. Carrots, beets and parsnips may also be produced profitably, if the work of cultivating is chiefly done, as it may be, by horse power.

## OATS FOR SHEEP.

A correspondent inquires if oats will injure sheep, and you ask some of your subscribers to answer the question.

I can assure him that they will not, if fed to them properly. It is not safe to give sheep too much grain of any kind when you commence feeding them, but after they are accustomed to eating it there is no danger. I have kept sheep for thirty years, and always fed more or less oats. Have wintered 400 the present winter, and have not fed them any hay until since the middle of March. Their feed has been oats unthrashed, once a day, oat straw once and corn fodder once, and they have done well. My last spring lambs I have fed on hay.

II.

Newbury, N., 1861. —

## SHEEP, WITH COLDS OR INFLUENZA.

Will you or some of your correspondents inform me of a cure for sheep that are troubled with a severe cold or influenza? The snow in January and February accumulated in my yard, higher than the floor to my shed, and having a heavy rain and thaw about the middle of February, the water ran into the shed, making it very wet, and nearly all of my sheep took a cold or influenza. Some have nearly recovered—two have died—several others discharge freely from the nose, and lose flesh. The symptoms are a thin, mucous discharge from the nose and eyes. As the disease advances they become dull, eat but little, stagger in walking, grate their teeth and droop their ears.

N. B.

Haddam, N., March 21, 1861.

REMARKS.—Much cannot be done for the poor animals by administering medicine. A warm drink made of ginger, or something of that kind, may be given, or if the bowels need motion, something to accomplish this may be used. Most that can be done is to furnish them with a warm, dry place, where they can be quiet, and to feed them on warm food, such as a bran mash, oats or cracked corn soaked in hot water, or a little sweet hay soaked in the same manner. We have had considerable experience with sheep, and find that these opinions are sustained by the best books on the subject. We have referred to them, hoping to find something definite to offer, but cannot.

## WHITE PINE SEED.

Will you inform me the best way to seed land with white pine; how much seed per acre, where can it be obtained, &c. Any information in regard to this will be thankfully received.

Auburn, N. H., 1861. CHAS. C. GRANT.

REMARKS.—Will some correspondent having the knowledge impart it to brother Grant through the *Farmer*?

## OATS AND BEANS.

Oats and beans, two or three parts of the former to one of the latter, ground, make good feed for cows. A neighbor says that beans are a preventive and a remedy for the garget. Farmers, try the above mixture. I will warrant it beneficial.

## SOILING COWS.

Will you inform me through your paper how to manage in feeding cows in the barn, in summer? Shall I mow grass for them, or raise some other green crop? If a crop, what kind?

Enfield, Conn., 1861. A SUBSCRIBER.

REMARKS.—There is nothing, in our opinion, equal to good pasture for cows—but as that cannot always be had, we must resort to some other mode of feeding to “help out.” This may be done by keeping the cows in the barn every other day, or by feeding them plentifully for two or three hours each morning, and turn them out for air and exercise during the rest of the day. For this purpose, a crop of early clover or oats is good; then follow with millet, and corn sown thickly for the purpose.

## BEE HIVES.

Will you, or some of your subscribers, favor me through your columns with the information where the bee hive invented by Rev. L. L. Langstroth can be found, and if it is a good one,—if not, whose is the best?

A SUBSCRIBER.

Worcester County, April 3, 1861.

REMARKS.—George T. Angell, 46 Washington Street, Boston, will supply you with Langstroth's hive. Mr. R. S. Torrey, of Bangor, Me., has a hive which we also think highly of.

## VEGETABLE CUTTER.

I saw in the *Farmer* for March an article on root or vegetable cutters; the writer speaks of one which has not been in the market yet, which he thinks is preferable to others on account of its cleansing the roots by a revolving cylinder and separating the dirt from the roots. Now, can the editor or the writer of this article inform me where this machine can be obtained, and at what price.

GEORGE PUTNAM.

Andover, April, 1861.

For the *New England Farmer*.

## BEE CULTURE.

MR. EDITOR:—There is one branch of farming which is very much neglected, and which is not only the most interesting and instructive but the most profitable. I refer to the keeping of bees. There is no farmer, however much his time may be occupied, but could attend to an apiary with from two to ten hives of bees, and for his labor, (I will not say labor, for it is only recreation,) he will get from 20 to 40 lbs. of honey from each hive.

The great objection to keeping bees has been, the want of a proper hive to enable one to feed his bees if the season should prove unfavorable, and to ventilate the hive, that the bees may be kept in a healthy state and the comb free from frost and ice.

These difficulties are completely obviated by a very simple hive invented by R. S. TORREY, of Bangor, Me. His hive is so constructed that a perfect ventilation is kept up, and the apiarian

can know just when his bees require food and can feed them, without at all disturbing them, and have the pleasure of seeing the little industrious creatures load themselves with food and convey it to their cells; it is also so arranged that the moths cannot trouble the hive, and the combs can be removed singly if desired. In fact, it is just such a hive as has long been needed.

I write this for the good of my brother farmers, not having any pecuniary interest in the hive.

There are one or two other subjects which I may drop you a line upon at some future time, if your columns are not too full. Your journal is doing us good. We are living upon old worn-out farms, and it is only by reading agricultural works and periodicals, thinking for ourselves and using the new labor-saving machines, that we can, at the end of the year, make "both ends meet."

Cumberland County, Me. B.

REMARKS.—We have great confidence in Torrey's Hive. During the past winter we have had several swarms, in different hives, all standing upon the same shelf, every one of which excepting Torrey's has suffered more or less from want of proper ventilation, and in two instances all the bees were dead.

*For the New England Farmer.*

#### ONE WAY TO PRESERVE MEAT IN WARM WEATHER.

MESSRS. EDITORS:—What is a greater luxury to an old-fashioned business man, occasionally, than a platter of well prepared bacon and eggs? In the premises, I would state, that meat smoked in cold weather, is better than in warm, and that different persons have different ways of pickling and preparing their meat for the smoke-house. When the pickling is accomplished upon any plan, the next thing wanted, is a suitable smoke-house adapted to the quantity of meat to be smoked. As my operations have been upon a small scale, seldom amounting to the curing of the legs and shoulders of more than two hogs, I have used a hog'shead of a large size, with one head taken out, then an auger hole bored nigh the crossing of the removed head through the staves in the centre, to admit a stick large enough to sustain the meat which is fastened to the stick with strings, then the removed head returned to its place, for a cover to keep the smoke in; then an iron pan with smoking corn cobs is inserted through a hole previously made at the lower end of the cask for a door; the pan is to rest on the unremoved head covered with sand to prevent its burning, then a tight door fitted to the opening, is applied to hinder a blaze of the cobs and retain the smoke in the cask. A supply of cobs may be introduced two or more times a day, for a week, when probably the meat will be sufficiently smoked for food.

Now for the most important part of the operation. Every person of experience knows how difficult it is to keep bacon sweet through the summer months; flies and other nauseous insects are attracted to it, and deposit their filthy eggs and slimy larva in every available crevice, till the meat is worthless, and more than all that, all animal matter has a tendency to taint and decom-

pose, and bacon is very liable to suffer in that way, unless indurated with salt to such a degree as to render it unpalatable. As smoke is a disinfectant, and a strong antiseptic, all the bacon that is to be kept for summer use I let remain in the smoke-house, and occasionally fumigate it with a pan of smoking cobs, the best preventive of taint as well as repellent of flies, bugs, and other nauseous insects. I have kept bacon, through the summer months, by this process, free from taint and contamination of all insects, "as good as new." I make no pretension to the invention of preserving meat in this way, further than the after smokings, which I have had no knowledge of having been done by any of my acquaintance.

North Wilmington, 1861. SILAS BROWN.

*For the New England Farmer.*

#### A GOOD CORN STORY.

MR. EDITOR:—One of your agents called on me last summer, and I showed him a piece of corn where I had used phosphate of lime and plaster paris in the hill, and he wished me to give the result through your paper. My land is a gravelly loam, pitching considerably to the south and east; rather late in the season I carted manure on to the grass, and as soon as I got enough for a day's plowing, I turned it under with a side-hill plow, plowing from eight to twelve inches deep. I put on about twenty-five loads of manure to the acre. After it was all plowed, I took a heavy roller and rolled it all down as smooth as I could, then I harrowed, furrowed, and planted on the top of the sods, using one large spoonful of plaster and phosphate of lime to the hill; hoed three times, and had over 200 bushels good sound corn on about three acres. My corn is of the twelve rowed kind, and very early. I left two rows where I put nothing in the hill; they yielded only two-thirds as much as those right beside that had plaster and lime; the corn was not near as sound and good, worth but very little, if any, more than half as much as that where the plaster and lime were put.

And now about different kinds of corn. I saw in the *Farmer* of March 16, WM. F. BASSETT, of Ashfield, thinks the King Philip corn the best. I have had thirty years' experience in raising corn for myself, and am satisfied that the twelve rowed corn that I have raised during that time, will yield from five to ten bushels of corn more per acre than any eight rowed kind in this vicinity, and is two or three weeks earlier at least, and the meal is worth several cents the bushel more than the King Philip, or Brown corn. I planted some of the King Philip the past season, spread manure and plowed in, and manured in the hill with summer manure. It was planted three or four weeks earlier than the twelve rowed, and was not ripe so soon by eight or ten days, and did not yield more than three-quarters as much. I shelled some of the twelve rowed and some of the King Philip, and gave to my fowls together, and they would take all the twelve rowed first. Within the last thirty years I have tried several kinds of eight rowed corn, that were very highly recommended, but never have found any that would yield as much, or was as early as the twelve rowed kind.

L. C. FRENCH, 2D.

Bedford, N. H., April, 1861.

## USE OF BONES AS A FERTILIZER.

We recently published an inquiry in relation to the use of bones; since which we have found the following reply to a similar inquiry, in the last number of the *Mark-Lane Express*, which we copy in the belief that it will be perused with interest by all our reflecting readers:

A correspondent asks for some information respecting bone manure. This is universally considered one of the best kinds of manure that can be applied to the land, whether for corn, grass or root crops, and its extensive and increasing use is a proof of the estimation in which it is held. Not only are the bones of those animals slaughtered in this country employed as manure, but nearly 80,000 tons per annum are imported from foreign countries, chiefly for the same purpose, and yet the supply is by no means equal to the demand. Had not the importation of guano commenced about the year 1840, it is probable that bones would have risen to £10 or £12 per ton.

"That bones must be beneficial as manure," says Mr. Nesbit in his pamphlet on Agricultural Chemistry, "will appear from a very simple consideration. Animals are fed upon vegetables, and the whole of their bodily structure grows out of the food, or is eliminated and formed from it. If the food did not contain phosphate of lime, the bony structure of the body could not be built up. If the soil in which vegetables grow did not contain phosphate of lime, the seeds of vegetables could not be matured. Supposing the arable land of this country to have been robbed for a thousand years of phosphate of lime, and never to have received any back again; assuming this ingredient to have been continually exported in the shape of milk, cheese, sheep and oxen, it is clear that unless the land had an unlimited amount of phosphate, which we know is not the case, there must have been a proportionate diminution in the quantity of such materials. Hence it is that when certain substances which had been taken out for a long period, have been again suddenly applied, land worth hardly 5s. per acre has sprung up to the value of 15s., and there has been an enormous increase of crops."

One of the most valuable qualities of bones is the slowness with which they decompose, and the length of time during which they continue to give out the phosphates. It is found upon analysis that one pound of bones contains as much phosphoric acid as 28 pounds of wheat, or 250 pounds of potatoes. Now, a crop of wheat of four quarters per acre, and reckoning it at 60 lbs. per bushel, weighs, in round numbers, 2000 lbs., which contains only as much phosphate as is found in 71 lbs. of bones. It is clear, therefore, that if the bones are put on at the rate of 3½ cwt. per acre, supposing them to decompose rapidly and give out the phosphates in proportion, a large proportion would be wasted. But that this is not the case, the following circumstances prove: A gentleman, who occupied a large farm in Norfolk, finding towards the close of his wheat-sowing, that he was likely to have a considerable quantity of bone-dust left, if he continued distributing it at the ordinary rate, directed his foreman to increase the quantity. On going to the field the following day, he found that the man had *doubled*

the allowance, and that instead of having any to spare, he would not, at that rate, have enough to finish manuring the remaining seeding land. He therefore told him to go back to the usual quantity of about 4 cwt. per acre, at which rate the field was finished. The crop of wheat proved a very heavy one, as well as the succeeding crop of turnips, on that part of the land which was thus double dosed with bone dust. Now mark what follows. *Eleven years after*, the farmer on riding with a friend over his land, came to this field, which was again, for the third time after the above occurrence, under wheat. On entering it, he requested his friend, if he should, in riding down the furrow, find any difference in the growth of the wheat, to point it out. After riding a few yards into the wheat he suddenly stopped. "What in all the world have you been after here?" he exclaimed. "This wheat is six inches higher, and as stout again as the rest; how came this to pass?" The farmer then explained to him the occurrence we have related, and which proves not only the value of bones as a manure for a single crop, but that by the deliberate manner in which they give out the phosphates in decomposition, they possess a more permanent value than any other kind of manure.—*Country Gentleman*.

*For the New England Farmer.*

## TWELVE-ROWED vs. EIGHT-ROWED CORN.

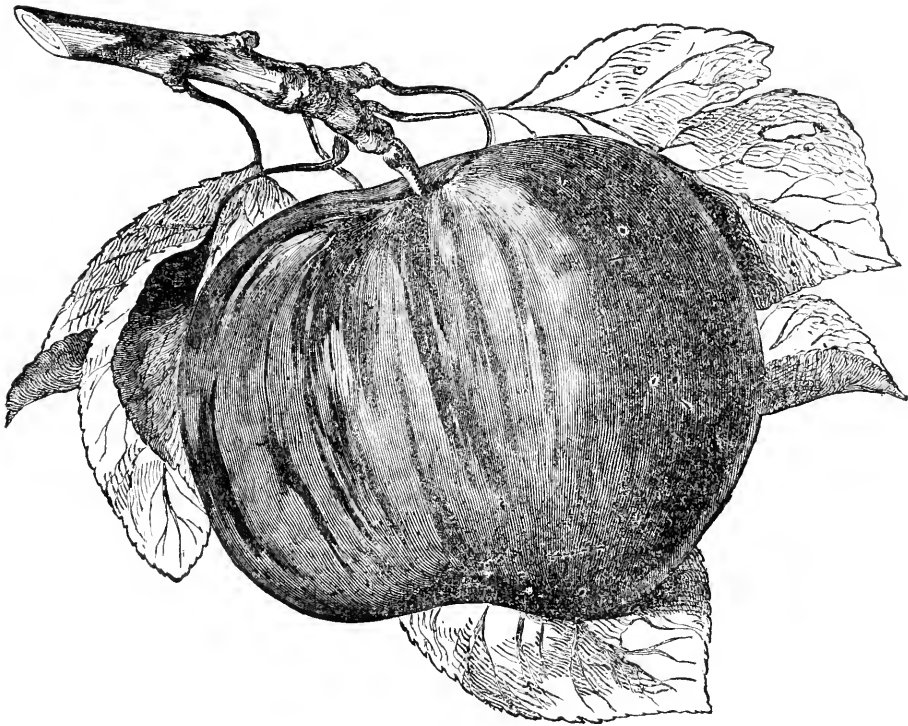
MR. EDITOR:—In a late number of your paper I find some remark of "A Farmer and Miller" in relation to eight-rowed corn being preferable to twelve-rowed, on account of drying better, and its greater value as fodder. I beg leave to say that I defy the world to produce a better variety of corn than I raise, heavier, finer fodder, or that produces better on common upland, or, in fact, earlier than this twelve-rowed corn. Hence it follows that the number of rows in a variety of corn has nothing to do with the real merit of that variety.

There are many things highly recommended in the public prints that will not answer for every latitude and locality. A neighbor of mine raises the far-famed King Philip corn with no success at all. Though recommended for being early, it is altogether too late for this county. This, and an eight-rowed sort, is bound to mould at all events. The Lawton blackberry will not stand our winters, and notwithstanding the high encomiums lavished upon it, it is worthless in this climate.

In reply to a suggestion made some weeks since through your paper, about distributing corn in the hill, I will say that I use one of Dana's hand planters, which chucks it in about two inches deep at one stroke. This machine leaves the corn in a line four inches long in each hill. As the corn grows it, diverges sufficiently to give it plenty of room. In this way it is much less work to hoe it, and in my humble opinion the corn is even and produces a better crop than when it is distributed in a square of eight or ten inches about the hill. THOMAS S. FLETCHER.

*Reading, Windsor Co., Vt., April 8, 1861.*

A punctual man can always find leisure, a negligent one never.



THE RED ASTRACHAN APPLE.

We have not cultivated this delicious apple, and therefore prefer to give the reader an account of it given by Downing, in his *Fruits and Fruit Trees of America*.

A fruit of extraordinary beauty, first imported into England with the White Astrachan, from Sweden, in 1816. It bears abundantly with us, and its singular richness of color is heightened by an exquisite bloom on the surface of the fruit, like that of a plum. It is one of the handsomest dessert fruits, and its quality is good, but if not taken from the tree as soon as ripe, it is liable to become mealy. Ripens from the last of July to the middle of August.

Fruit pretty large, rather above the middle size, and very smooth and fair, roundish, a little narrowed towards the eye. Skin almost entirely covered with deep crimson, with sometimes a little greenish yellow in the shade, and occasionally a little russet near the stalk, and covered with a pale white bloom. Stalk rather short and deeply inserted. Calyx set in a slight basin, which is sometimes a little irregular. Flesh quite white, crisp, moderately juicy, with an agreeable, rich, acid flavor.

A "SCARE CROW."—The following is said to be a remedy against the depredations of the crow and blackbird, in the cornfield:—Take fine plump

seed corn—a quantity of it—string each kernel on a horse hair—white is best—tying a knot in it to prevent its slipping off. Scatter it over the field in spots where the birds will see it and alight. They will eat but one kernel of it, and will not trouble that field (or any other) again. The two ends of a horse hair sticking out of their mouths well anchored in their crows by a fine kernel of corn, is by no means a pleasure to them.

A BAD CUSTOM.—In no pursuit or profession, is there required so great an exercise of judgment, experience, observation, and of science also, as in the proper treatment of the great variety of soils with which the cultivator has to deal. The rule is; make professional men of your smart boys—leave the dolts to till the soil. It *should be*; devote the best talent to the cultivation of the soil where the highest degree of judgment and skill is required; and let the lower grades of intellect be sent into the routine of professional life.—*Amer. Agriculturist*.

WHAT a glorious world this would be if all its inhabitants could say, with Shakspeare's shepherd: "Sir, I am a true laborer; I earn that I wear; owe no man hate; envy no man's happiness; glad of other men's good; content with my farm."

## CRANBERRY CULTURE---No. 2.

*Preparation of Soils for the Plants.*—In this operation, there is little unanimity of opinion, or practice. If it is desired to reclaim a swamp, select one upon which water may be thrown at will, and a good method is to flow it for an entire year, as the brush at the end of that time will usually be dead. Then draw off the water, cut the bushes and hassocks, and in a dry time burn the whole over. If thorough work is to be made of it—and that is by far the most profitable process—pull up the roots, take out stumps, fill holes, and level, so as to make the surface easy to work upon. While this has been going on, a dam should be constructed of sufficient capacity to flush water over the whole surface in a short time, and then the field is ready for the plants. These should be selected—

1. From *bearing* vines, as some of them, like the grape and strawberry, are barren.
2. From *prolific* plants—plants that you have seen with your own eyes, full of fruit from year to year.
3. From *healthy* vines—those that are young, of a dark green color in the autumn, before they are entirely ripened or touched by frost, and that show no signs of blight or mildew, and have not been infested by worms.
4. Select one of the three varieties mentioned, or, on a portion of the plantation, mix them with each other.

The vines being selected and brought to the field in large quantities, one person should make a suitable hole with a hoe, and another follow with his barrow of plants, set them in the ground, with or without roots, scrape the moist soil over them and tread down with his foot. It matters little whether one inch of the plant, or six is left out of the ground, provided two or three, or more inches are underneath.

The closer they are set together, the sooner will the ground be covered, the plants take possession of the whole surface, and keep out all intruders, such as meadow grass, bushes and brakes. If we were now to begin a plantation, we would set them within one foot of each other, or if plants were plenty, only *six inches* apart.

In order to acquire all the information possible respecting this fruit, we addressed several questions to persons interested in its culture in various parts of this and some other States. On this point of planting, a gentleman in New Hampshire writes :

“I set the plants three, or three and a half feet apart, but if I were to set again, I would set three times as thick—they will cover the ground so much sooner, and stifle the grass and weeds better. I made holes with a small stick in the soft

soil and stuck in a wisp of vines about as large as my finger; sometimes they had roots, and sometimes none. Out of 16,000 hills, I did not see one that died. But my soil was very moist. They grew finely, and I had a few berries the first year. The third year I picked twenty-five bushels. The fourth year there were sixty bushels. I sell them for three dollars a bushel at the house. My vines will bear now from one to two hundred bushels a year, according to the season. They were set at the rate of 1000 hills a day for one man.”

These 16,000 hills were made on four acres, seven years ago, at the rate of 4000 hills per acre.

Swamp lands, however, sometimes produce good crops of cranberries without so much expenditure of labor in clearing. When the bushes are killed by flowing, or cut off, with the grass, weeds and brakes, the vines are set at once, and, if other things are favorable, a fine plantation is produced.

Another mode of obtaining a cranberry plantation, or yard, as they call them on the Cape, is to employ our common fresh meadows, that are annually covered with grass and mowed. When this is done, Mr. Hunt, whom we have already quoted, says, “I would turn the turf bottom side up, which may be done with hoes for about twenty dollars per acre.”

In regard to employing grass land, a friend who visited some of the best cultivators on the Cape, on purpose to learn their modes of practice, writes us as follows :

“Another experiment I regarded as very successful, viz. : planting among grass more than two feet high. A man with a stout hoe turned up the sod, put in a *bunch* of vines (not a *sod* of vines) turned the sod back and stamped it down upon them. This was all that was done in planting. They were set four years ago, six feet apart, and have now nearly exterminated the grass and covered the ground. We estimated the crop this season to produce one and one-half bushels per rod. The application of sand has had no beneficial results.”

Another plat of small extent had the grass subdued, and was *sown* over with vines cut as fine as a hay-cutter would cut them. These had grown but one season, but looked well, and satisfied me that this mode of planting may succeed. They will, however, require a much longer time to come into bearing. Still another piece was commenced in 1850, on twenty rods, or one-eighth of an acre, by taking off the grass, and gravelling over previous to planting. There were very few berries the first two years, but the eight succeeding years have netted him £150 annually, although in one of these years he lost the entire crop by frost. This is at the rate of one thousand and



two hundred dollars a year, per acre, for eight years in succession on twenty rods of land! On the same piece, the owner had a single rod of the best he could find, selected and surveyed, and the fruit gathered and measured in the presence of several of his neighbors, and the product was found to be a little over seven bushels of fine fruit—being at the rate of eleven hundred and twenty bushels per acre, which, at the same price that our New Hampshire friend gets at his house, three dollars, would be the handsome sum of \$3,360 per acre! A gentleman who saw this "yard" last fall writes us that he thought the whole piece would yield more than a barrel to the rod.

*For the New England Farmer.*

#### CULTURE OF FRUITS ON FARMS.

The culture of orchards of good apples is one of the best modes of making farming profitable. Marked instances of this culture have come within my observation, in the county of Essex, during my acquaintance with the farming of the county. I recollect a field of seven acres, situate on an elevated swell of land, facing to the south and east, enclosed with a stone wall substantially made to the height of six feet, mainly for the purpose of getting rid of the stones that were in the way, in converting the pasture to a field. Around this field, about six feet from the wall, and about two rods apart, were set Baldwin apple trees to the number of fifty. A few years since, these trees averaged six barrels of merchantable apples to a tree. These apples yielded a net profit of five dollars a barrel, over and above the expense of conveying them to a market in England. Here then was a net profit of two hundred and fifty dollars from the fruit alone, on this field, leaving the crop of grass in no manner diminished by the growth of the fruit. I said these trees were set near a high wall, and I doubt not their growth was facilitated, and their products increased, by being thus situated.

Early in life, I was told by my father, that one tree set in the vicinity of a stone wall, or by a large boulder, was worth double a tree left exposed in the open fields. Why it is so, I must leave to those who understand the philosophy of vegetable growth to explain. I suspect there may be a disintegration of the rock, that is taken up by the rootlets of the tree, that is favorable to the growth of fruit. I have always noticed that the soil near a wall, or large stones, is richer and more easily cultivated than that which is in the open field. I have spoken only of the culture of apples, the fruit most common on our farms, and when considered in all their relations, they will be found the most valuable branch of fruit culture to farmers. Good fruit will ever find a ready sale in the market, even though there should be no occasion to make cider from it, but the time has not yet arrived when cider, well refined, will not find an abundance of customers, and probably never will, so long as the appetite of man hankers after a pleasant and salutary beverage. That too much cider taken into the stomach will stupify the brain, will not be denied, and so too

much water will overload the stomach. But shall men forever be precluded the taste of good cider and pure water, because occasionally the use of it has been abused? By the same process of reasoning may we deprive ourselves of all the luxuries produced from the field or the garden.

*South Danvers, 1861.*

J. W. P.

*For the New England Farmer.*

#### THE WHEAT CULTURE.

I am glad to notice of late, in the *Farmer*, and other agricultural journals, an increased attention to the culture of wheat. I have long been impressed with the idea that the almost total abandonment of this crop in New England is a mistake—if not even "worse than a crime, a blunder." Up to about the year 1825, wheat was the great article of export from Vermont, western Massachusetts, and portions of other N. E. States; but with the advent of sheep raising, came a gradual abandonment of that which makes the "staff of life." New England does not now raise one-eighth, or perhaps even one-tenth, of the wheat necessary for its own consumption. I think this need not be, and ought not to be. I know that the wheat crop is, to a great extent, an uncertain one. It probably fails three times where the corn crop fails once. This is the case even on the great wheat-growing prairies of the West. But it is an indispensable article of food—more so than any other crop—and should therefore receive special attention and encouragement.

I suppose that, if any one fact of chemistry, as applied to agriculture, is settled and established, it is, that the growth of wheat requires a large proportion of the phosphates in the soil. This is particularly true in regard to phosphate of lime. We find, therefore, that even in western New York, and other limestone regions, there has been a gradual falling off in the yield of wheat. The same must occur in all the great wheat-growing regions of the West, as fast as this peculiar property of the soil becomes exhausted. It follows, therefore, that wheat-growing must finally fail everywhere, unless some means be devised for restoring those properties of the soil which frequent croppings of wheat may have destroyed. And as the great element thus used up is clearly phosphate of lime, the renewal of that element in some form would seem to be indispensable. The best form, undoubtedly, if within the reach of the farmer, is ground or pulverized bone; but as that is not procurable to an extent sufficient to restore "the lost art" of wheat-growing to the whole of New England, I would recommend that farmers should experiment on a small scale, perhaps, at first, with the phosphates advertised at the agricultural warehouses—say Coe's superphosphate. It is important to know, first, whether that article will enable our old lands to produce wheat, and secondly, how long one application of it will last.

It is well known that spring wheat will grow and produce well, the season being favorable, on land manured from the stable—say with about half as much manure as is necessary, broad-cast, to produce a good corn crop. But there are objections to spring wheat. It does not yield nearly so large an amount, per acre, as winter wheat,

and it is much poorer in quality. But it is a great deal better than none; and as it is not subject to winter-killing—one of the worst mischances of winter wheat—it may well be considered the safest crop.

Farmers frequently attempt a substitute for wheat by plowing up a poor pasture and sowing it to rye. They obtain perhaps from ten to fifteen bushels per acre—about half a good wheat crop, and attended with nearly the same amount of labor—and after living on rye bread for a month or two in the fall, are glad to sell the remainder of the crop and purchase wheaten flour. In my judgment, the culture of rye, except on some soils specifically adapted to it, is poor economy. I well recollect that, during the fall of 1816, when the corn crop was cut off in all the northern States, my father undertook to fatten his hogs upon rye; and he got about the same result that a certain unpopular personage is reputed to have attained in shearing the pig; he got "great cry" and very little pork. In whatever form he fed them the rye, the hogs invariably called for more, and refused to grow fat under any dispensation of it. Since that period I have looked upon rye as just about the last crop I would recommend the farmer to attempt the cultivation of.

I have heard it remarked by old farmers, in wheat-growing times, that wheat would do well on all soils that would produce herds-grass. Now as I have found by experiment that swamp muck, on dry or gravelly land is one of the best fertilizers for herds grass, would it not be well to try it for a wheat crop. Unfortunately, perhaps, I do not possess a farm, and therefore cannot experiment for the benefit of myself or others; but if it should prove true that muck is a fertilizer for wheat, no one more important fact in agriculture could be developed.

I know it is fashionable for farmers to say they can purchase flour cheaper than they can produce wheat. I believe one of your correspondents has written a book to prove that all kinds of farm products cost more than they come to. This kind of arithmetic is mischievous. The thrifty farmer will strive to produce, as far as possible, all that is necessary for his own living. Least of all should he be dependent upon others for his *bread*. The cotton-planter at the south, who can raise corn for eight cents a bushel, and still buys it at fifty cents to feed his slaves on, is not more out of love with true economy, than the New England farmer who tries to convince himself that it is easier to *purchase* his bread than to *produce* it.

Somerville, April, 1861.

E. C. P.

#### WHAT IS LAWFUL SOUNDNESS OF A HORSE.—

In reply to this question by a correspondent, the *American Stock Journal* publishes the following:

On consulting "Oliphant," on the law of horses, you will see that he defines "soundness" as follows: We may define a horse to be sound when he is free from hereditary disease, is in the possession of his natural and constitutional health, and has as much bodily perfection as is consistent with his natural formation."

Another definition of "soundness."—That horse

is sound in which there is no defect nor disease, that shall impair his present or future usefulness.

A third definition of "soundness."—That horse is sound that is perfect in structure and function.

According to the above definitions of "soundness," it would be a matter of impossibility to find a sound horse; therefore I advise you not to warrant the animal which you suppose has a corn.

For the New England Farmer.

#### SOME CHOICE APPLES.

The apples mentioned below, among others which I have under cultivation, are comparatively new in this region, and deserve general attention.

RED ASTRACHAN.—This foreign apple is one of the most prominent of the early varieties; is large, peculiarly handsome, and in appearance will rival the Williams. It is a little earlier than the last named, though not so fine for the table, though more juicy, yet acid. For mid-August, however, this is no great fault. Its growth is exceedingly vigorous, its leaves very large, and its fruit being showy, it makes the handsomest tree of the garden. It is also an early bearer. Its fault is that, bearing in clusters—its tartness and tenderness assisting—it rots on the tree badly, and is less transient than the Williams. It is, however, very valuable.

GARDEN ROYAL.—A medium-sized fruit, ripe in September, colored like the Hubbardston Non-such, very tender and juicy, and of a mild, pleasant flavor. The fruit has some peculiarities. It is uniformly fair, and specimens direct from the tree that might be regarded in good eating order, will greatly improve by being kept a week or fortnight, as they become more juicy rather than dry, and are little disposed to rot. The tree is a handsome, very upright and compact, though slender grower, and bears young and abundantly. The fruit is eagerly bought by dealers who are acquainted with it.

GRAVENSTEIN.—This apple, a little later than the Garden Royal—has never been over praised. It is far superior to the Porter, and must necessarily supplant that heretofore popular variety, as no one would cultivate the latter, if acquainted with the former. It is larger, handsomer, and of much finer quality. Besides, it is a good grower, making a spreading head, and bears early. There can be no doubt of its being the most valuable of all the early autumn apples. The rind is thick and oily, emitting a fine aroma, and it is a splendid market apple. It will keep over two months, and I have seen specimens of it in January.

GRANITE BEAUTY.—A large winter variety from New Hampshire, of great promise. Inclining to oblong, greenish-yellow ground, with numerous dark, dull stripes; light texture, pleasant sub-acid, and very juicy. A strong, spreading grower, and grafts which I procured of Mr. Breed, of Weare, N. H., four years ago, show indications of a good crop this season, on a stock ten years old. This apple, among cultivators, is receiving a good share of attention.

TOMPKINS COUNTY KING.—An apple lately introduced from New York State. It is a winter fruit, larger than and colored similarly to the Baldwin, and though a little superior in flavor, will

not keep so well. An early and good bearer, it is said, though not yet fruited at the East.

RED RUSSET is a New Hampshire apple, and from its firmness and good-keeping qualities, must be very valuable, especially as a market fruit. It is a perfect cross between the Baldwin and Roxbury Russet, partaking of both in appearance and flavor, and about the size of the former. The late Mr. Cole, who was instrumental in introducing it, stated, from experiments, that it would keep better than the Roxbury Russet, and was superior in every respect. A very substantial, rich-looking apple, hardy, a good grower and bearer, and probably destined to supply a want much needed.

HUNT RUSSET, though not a new variety, is not so well known as the Roxbury Russet, though well deserving to be. Some suppose it to be the Golden Russet, which I regard as inferior, appears never to grow so large, nor has it so rich a russet hue. Some cultivators have wondered how others could raise such large Golden Russets. Probably they were the Hunt—which, (more tender and smaller than the Red Russet) from its white melting pulp, late-keeping qualities, &c., must maintain an important position among the spring apples of New England. D. W. L.

*West Medford, April, 1861.*

*For the New England Farmer.*

#### ADVANTAGES OF DRAINING.

MR. EDITOR:—It seems to me to be a suitable time to bring up the subject of underdraining our farming lands. It is doing a kindness to laborers to find work for them, when there are so many glad of employment. Ditches for tile drains can be made now, at but little more than one-half the cost of making them in the autumn, as the soil is much easier to dig, labor easier to obtain, and the work of the farm not so much interfered with.

From considerable experience in draining my own land for several years past, and from the favorable testimony of many farmers in this vicinity who have tried the same upon their own farms, I am convinced that there is no investment we can make that will bring more satisfaction to us than this. The advantages vary, of course, in different soils and situations, but almost every farm has some land that will be benefited by underdraining. I know there are some persons who discourage farmers from underdraining their lands; but I have yet to learn that any of these persons have ever given it a fair trial, on their own lands, or have had any practical experience of the subject.

I am acquainted with a young man who left the city of New York, several years ago, and took a farm in the westerly part of that State, and commenced a system of underdraining with tile, until he has been over a farm of 300 or 400 acres, laying more than sixty miles in length of drains, and increasing his wheat crop from fifteen to twenty-five bushels per acre, and other crops in proportion, and receiving a medal for the best cultivated farm in the county. His land was elevated land; what we should call at first sight, dry land, not needing drainage, but still a clay subsoil, retentive of moisture, and, without draining, cold and late for vegetation in early spring.

Now we have, in the vicinity of Boston, a great

proportion of similar land, which, if properly underdrained, will make the very best land for cultivation of any land that we have. Let but the experiment be tried, and the result will be satisfactory; vastly more than almost any one, unacquainted with such experiments, would imagine. I do not wish to have it inferred that underdraining alone is sufficient to produce great crops, but that with thorough underdraining, manuring and loosening of the soil to a good depth, we may be sure of a great crop, let the season be unusually wet, or unusually dry, very early, or very late; and without underdraining such land as I have referred to, we cannot depend, with any certainty, upon even an ordinary crop.

I have found a great advantage from underdraining, from its removal of stagnant water, from the low, springy land near my dwelling, thereby removing the great nuisance of mosquitos in warm weather, and also, in a great measure, the cold, damp air of the evening. When, in addition to these advantages, I have seen land formerly covered with hassocks, and the coarse water grass, yielding the best and earliest crops of the season, rivalling any that are reported as the best crops of the fertile west, then I feel how much better it would be, if the money now expended by the State upon agricultural societies and boards of agriculture, was judiciously expended in the encouragement of underdraining the wet lands of Massachusetts.

I know there are some who still insist upon using stones for underdraining, instead of tile; and some, even, who advocate plowing wet land, into "beds," with open ditches between, and no underdrains. From more than thirty years' experience in both these methods, I am satisfied that draining with stone involves more expense of labor, under almost any circumstances, and is not so much to be depended upon; while the "beds" are very good for the plants to sleep in, but not to grow in, in comparison with underdraining.

The usual expense to a farmer of underdraining, beside his own labor, is about thirty dollars to the acre, while the advantage to the crop the first year more than averages that amount.

I think the reason that light, mellow soils are usually preferred for vegetables, is, that they drain themselves, and are always easily worked, while the tenacious clay soils, if they are thoroughly underdrained, and well subsoiled, will prove to be more certain of large crops, with an equal quantity of manure. As a proof that this theory holds good in its application to the "nursery" of trees and shrubs, the remarkable success of Mr. WILSON, of Malden, in growing in an underdrained clay soil the handsomest specimens of pear stocks to be found in any nursery, will abundantly testify.

In the fall of 1858, a field of two and a half acres of land in North Chelsea, was underdrained with tile about four feet deep. The field had been in grass, under the "bed" system, with open ditches, with no very satisfactory result. These open ditches happening to be about twenty-five feet apart, they were adopted as the lines for the tile drains. In the summer of 1859, a remarkably large crop of cabbages was taken from the field, a separate account of which was not preserved. In 1860 the field was planted with Jack-

son White potatoes, dropt in drills three feet apart, and covered with the plow. They were hoed but once during the season. In July and September, 915 bushels of very handsome potatoes, were sold from this field, (equal to 366 bushels to the acre) beside 150 bushels of small potatoes; and later in the season, \$100 was received for celery, grown on a part of the same field. Most of this land, before underdraining, was too wet to plant; it was a favorite resort for musquash, and they have been unwilling to abandon their old haunts. After going through the tile in the main drain, and attempting ineffectually to reconstruct their dams, they have deserted the field, apparently with a great contempt for drain tile.

*For the New England Farmer.*

#### THE SLAB--CARROT CULTURE.

MR. BROWN:—I noticed in a late number of the *Farmer*, a recommendation of the "Slab" as an article with which to cover the seed, and put the finishing polish on ground recently laid down for meadow; also, that the suggestion pleased you, as well it might. You have in this contrivance a true delineation of the true Yankee character. He never despises a thing because it is simple, cheap or common. Every thing, in his view, is fitted for some good use. You have heard of the good housewife who was furnished with very crooked wood, to try her patience, on a bet that it would make her scold. Instead of scolding, she begged for more of the same sort, because, said she, "it fits so nicely around the dinner-pot." She found that which most would have thrown away, best fitted for her use.

But, sir, I took the pen to tell you that the slab has other uses. In a kind of official ramble, last fall, among the crops of members of the Berkshire Agricultural Society, we examined a large field of carrots entered by C. O. Perkins, Esq., of Becket. In speaking of his mode of culture, he said that the ground being on a northern declivity, and a little cold and wet, he put the seed on a moderately raised ridge. But how, we asked, is this ridge preserved, and this true and thorough tillage between the rows secured without an amount of hand labor inconsistent with economy in a region where land is cheap, and labor comparatively dear; for we had already discovered that cost and value were two gentlemen with whom Mr. P. was thoroughly acquainted, and who were kept by him in very close relationship to each other. He answered, "I selected a slab of just the right width and convexity, some three feet long, (I write from recollection,) draw from the flat side a few cents' worth of large cut nails, sufficiently long to reach through far enough to scratch thoroughly; cut the lower edge of one end so that it would not catch; fastened a rope to that end; put the rope in the hand of a boy and set him in motion. I found it did the work most admirably."

Now, Sir, here was a cultivator, which, perhaps, in work and materials, cost a shilling, and which was just the thing for the work required. The Yankee always saves the pieces. In his hand they "come in play," at some time; the slab and the crooked sticks as oft as straight ones.

*Pittsfield, April, 1861.*      STEPHEN REED.

*For the New England Farmer.*

#### SWEET GERMAN TURNIP.

Among the many "good, bad and indifferent" varieties of turnips that are cultivated in this section, we have one that I think is far superior to any I have yet seen. It was sent into this place a few years since from Canada, I think, by the name of "Sweet Turnip." I have since learned that it came originally from Germany; therefore, I have given it the name of "*Sweet German Turnip*." I have taken some pains to distribute the seed, and as far as I know, they give universal satisfaction. Those who have them, discard all other kinds, especially for the table, as they have not that strong "turnipy" taste peculiar to other varieties, being sweet and tender. I will venture the assertion, that they will keep sound and tender the longest of any turnip known; they will keep perfectly until July, without any protection whatever, more than to lie on the bottom of a cool cellar. By being packed in dirt or sand, they can easily be kept until new turnips come in; in fact, I have never yet seen a "corky" "*Sweet German Turnip*." By exposure to the air they will wither, and eventually dry up, but they never become "corky," like other varieties.

They yield about the same as the ruta бага, and should be cultivated in about the same manner. My method of cultivating them as a field crop, was as follows: I selected a piece of land that was highly manured the year before with barnyard manure, and planted with corn; soil, a gravelly loam; plowed about the 15th of June, and sowed in drills far enough apart for the cultivator to pass between them; at the second hoeing thinned to 12 or 14 inches. I used no "fertilizer" except a light top-dressing of plaster when they first came up. About the 1st of November I harvested them. They were the most beautiful lot of turnips I ever saw; yielded at the rate of 900 bushels per acre. I once sent a quantity of the seed to Mr. F. A. Stow, of Troy, N. Y., who has since written as follows: "From the Sweet German Turnip seed that you sent me last spring (sown on five acres,) I raised 4,000 bushels of turnips. I consider them a fine article, and wish you to send me four pounds of seed for next year."

I enclose you a letter that I received from Hon. Levi Bartlett, of Warner, N. H. Such testimony from such a source speaks more than I can write.

I have sent at different times 250 pounds of the seed of this turnip to the Patent Office for free distribution. I have still a large quantity on hand, and will send a package *free to any address*, on receipt of a few stamps to pay return postage, and trouble and cost of putting up and mailing. I make this offer from desire to have it more extensively cultivated.      EDWARD L. COY.

*West Hebron, Washington, N. Y.*

Mr. Bartlett's letter, alluded to above, is as follows:

MR. COY:—*Sir*:—In the spring of 1857 you forwarded to me a package of Sweet German turnip seed. They were sown at the same time, (June 12,) side by side with several varieties of Swedish turnips, viz.: Ashcroft's and Rivers, Swedish Stubble, and Skirving's do. The two first named are very fine varieties, being yellow fleshed, and very good for table use; but we very

much prefer yours for the table, the flesh of which is as white as the "snow that by the northern blast has been twice bolted o'er." I think this variety might be freely fed to milch cows without imparting the "turnipy" taste to the milk and butter that the Swedish and other turnips do. I believe they possess the keeping quality in an eminent degree, for I planted out last spring eight or ten nice bulbs for seed, and they scarcely exhibited any signs of vegetating, and I think they would have cooked well in September. I grew them again the past season, and can cheerfully recommend them to all who wish to procure a "number one" turnip for family use and for the market.

LEVI BARTLETT.

Warner, N. H., Jan. 15, 1859.

For the New England Farmer.

### OVERLOADING AND OVERWORKING HORSES.

The unmerciful use of the whip upon the noble horse in our streets ever pains the ear and the heart of the generality of such persons as may be cognizant of the act. Though the animal may be refractory at the time, still the spectacle, or resounding of the lash excites our pity for his sufferings. The driver, that regards the public sentiment and feeling in this respect, will use the whip lightly and sparingly. But, if he inflicts pain upon the public heart, by his unmerciful applications of this instrument of animal torture and punishment, he will reap, as he will merit, ever, the full reward of a general dislike. The act is inhuman and vulgar, and it bespeaks our humanity and progress in civilization, that we have an enactment upon our statute book for the prevention of this barbarity.

The whip is an unnecessary instrument for the correction of the most vicious horse. Intractability is unnatural to this animal. God created him with a tractable and a docile disposition. He was made, evidently, for man's domestic use and purpose, and was most wisely and admirably adapted in his creation, to the most perfect fulfilment of that design, by his peculiar trait of obedience. He becomes attached to the kind master, and delights to obey his commands and to do his will. He becomes vicious and unkind from the effect of abuse and mismanagement of him, by his master.

Horses are often whipped because they cannot draw loads to which some indiscreet persons have attached them, or cannot haul them as readily and speedily as they could suitable sized ones. And they are whipped to make them travel speedily, after they have been travelling so long as to become fatigued. In such cases, every blow of the whip is an injury to the horse; in the one case it increases his fatigue the more: in the other, it causes him to strain and stiffen himself. The strained and overtaxed muscles and joints become stiffened and weakened. The value of the horse for use, and for the market, becomes thus more or less diminished. If we want quick motioned teams and free travellers, we must not strain and fatigue them unnecessarily. It is better to go twice with a given quantity of freight, than to injure a horse or team, by overloading, more in value, by this excess of loading, than is gained

thereby. Whenever there is too much loading for a team to draw easily, another horse should be immediately added, or some of the freight taken off. But if neither is done, the team should be favored, by allowing it to move slowly, and to rest often. It is better to let a fatigued horse move more slowly, or to put him up to rest, rather than whip him to renewed exertions to greater fatigue and wear of life.

By the abuse of the horse, we injure his present value, and deteriorate the stock, or species. Some teamsters boast of the instances of great exhibitions of strength, by their teams. But such boastings are not guaranties of their soundness and value. They are not any better for such instances of their displays of strength, but are rather more frequently worse.

We have no law against the abuse of horses. I would that it could be prevented, somehow. Were public sentiment or feeling as much against it, as against the use of the whip, it would diminish. But this is a still injury; it does not always rebound with the lash, that is, every overloaded team or horse is not, as a matter of course, punished with the whip. We pass and repass, frequently, horses staggering under an oppressive load. We often pass horses and teams injuriously straining themselves in the transporting of great loads, and take no thought, as we should, of their sufferings and injuries.

Such abuse of the noble animal is most unwise, uneconomical and unmerciful, uncivilized and unchristian, and let us cease forthwith and forever.

G. O. B.

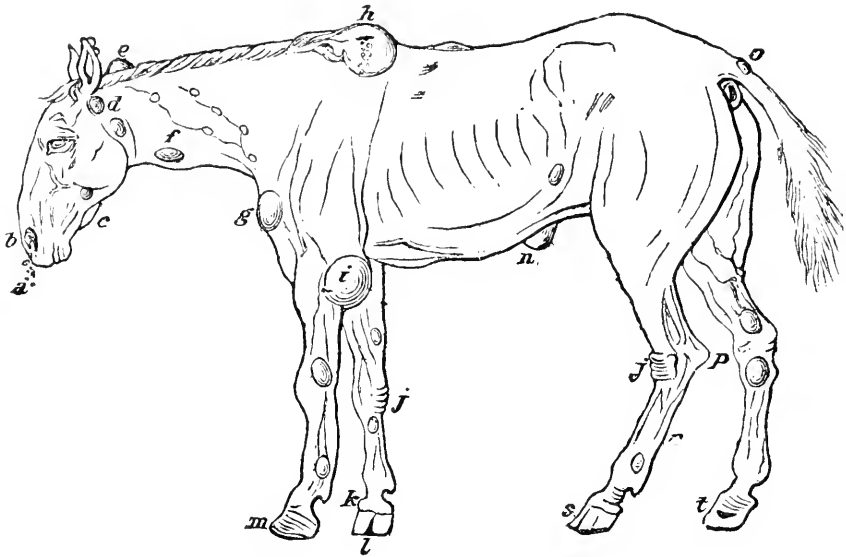
For the New England Farmer.

### THE CULTIVATION OF WILD FLOWERS.

I cultivate many choice shrubs and flowers, but never had any one of them yield me so much pleasure as a bed of the common, blue, white and yellow violet. Two years ago, I was out in the field, when I came across a large patch of violets, I thought I would return, and transplant them. The next spring I had forgotten about them, when I was surprised to see them coming up so vigorously; they were in a warm south situation, and bloomed very early, they were three times as large, and long stemmed enough for bouquets. The leaves were very much enlarged. Several of my friends made the inquiry what are they? I plant them in large patches; since then I have transplanted the white snake violet and yellow, favorably; the white prefers a very wet situation, also the common wild lupin and the red lobelia or cardinal flower; these are in the reach of all, the poor can have them, those that love flowers. Perhaps you might suggest, in some of your articles, the plan of transplanting some of our beautiful wild flowers. I also take the *Gardener's Monthly* and my father takes your *Weekly*. Can the barberry be budded with the white rose? and will it be yellow? Is there any remedy for the small red aphid? Can you describe the processes of budding roses? I would like to experiment on some double blush roses. About the wild flowers; could not you write an article on them the first of April, as I think they would be very acceptable to many of your readers.

Abington, 1861.

EVELYN S. DOANE.



AN ABUSED, OLD, SICK HORSE.

The above striking illustration of a long-suffering and abused horse has been furnished us by L. PRANG & Co., Boston, who have just published a valuable book entitled "*The Horse Owner's Guide*," a notice of which may be found in another column.

The following lettering, as references, will show many of the diseases to which the horse is liable.

- a. Sickly discharge from the nostrils.
- b. Ulceration of the membrane lining the whole cavity of the nose, symptoms of glanders.
- c. Caries of the lower jaw.
- d. Swelling by pressure of the bridle.
- e. Poll evil.
- f. Inflamed jugular vein, comes frequently from bleeding.
- g. Fungus tumor produced by pressure of the collar.
- h. Fistula of the withers.
- i. Tumor of the elbow.
- j. Mallendero.
- k. A tread upon the coronet.
- l. Sand crack.
- m. Contracted or ring foot of a foundered horse.
- n. Ventral hernia.
- o. Fistula of the tail.
- p. Capped hock.
- r. Swelled sinews.
- s. Cow crack—toe crack.
- t. Quarter crack.

Forty-seven distinct diseases, symptoms of which are visible in the outward appearance of the horse, are designated in the original plate in the book.

**LIQUID GLUE.**—The following recipe, the discovery of a French chemist, is selling about the country as a secret at various prices from one to

five dollars. It is a handy and valuable composition as it does not gelatinize nor undergo putrefaction and fermentation and become offensive, and can be used cold for all necessary purposes of glue in making or mending furniture or broken vessels that are not exposed to water. In a wide-mouthed bottle dissolve eight ounces of best glue in a half-pint of water, by setting it in a vessel of water and heating it till dissolved. Then add slowly, constantly stirring, two and a half ounces of strong aquafortis (nitric acid). Keep it corked and it will be ready for use. This is the "Celebrated Prepared Glue," of which we hear so much.—*U. S. Journal.*

*For the New England Farmer.*

#### PROFITS OF FOWLS.

MR. EDITOR:—I have read with much interest a statement in the March number of your excellent journal, made by "J. B.," of Salem, giving the result of one year's account kept with his fowls. Could his success be generally realized, I think there would be far more accounts opened with the hennery. A very general opinion prevails, that the keeping of fowls affords no profit, but on the other hand, that, as a general thing, they do not pay. In fact, this last impression may be true to a great extent, and for the plain reason, that they do not receive that care and attention which is necessary to the successful management of any department of the farm or garden.

Many people seem to expect that they can rear fowls the same as they do their children, allowing them to run at large and take care of themselves, and the result in either case is very likely to be quite unsatisfactory. I believe there is no investment on which the farmer can make a better per

centage of comfort, health and money, than a judicious selection and a proper management of a moderate number of fowls. I have kept a few for several years, and besides the gratification afforded in rearing them, have enjoyed the luxury of a good supply of fresh eggs nearly all the year round; although obliged to confine them to the hennery, and buy all their eatables, I find that it pays me more than the cost. Still, I would not presume to compare accounts with "J. B.," of Salem, who will confer a favor on many of your readers, if he will give us a few additional items in relation to the management of his fowls, which proved with him so eminently successful. Did they run at large, or were they confined to a hennery? When were the scraps fed to them, and in what quantity? What was given them to furnish shells for their eggs? And any other particulars affecting the result.

What is the reputation of the Leghorn hens as layers, or for the table, and where can the pure bloods be obtained? I have found the Black Spanish to be good layers, but not worth cooking for the table, their flesh being very dry, tough and stringy at six months. I have also kept the Bolton Greys, and have found them to be less prolific layers, but very excellent for eating.

*Brookline, April 3, 1861.*

J. R. B.

*For the New England Farmer.*

#### VARIOUS METHODS OF ECONOMIZING OUR CORN CROPS.

This subject may seem to be out of season, just now, as most farmers have not probably fully decided how much they will plant, neither can they for a certainty know whether they will have any to economize if they do plant. It is here that our faith comes into exercise, and our confidence in the stability of our Heavenly Father's government is manifested. The past is ever regarded as the surety of the future, and the Christian man regards it as a striking fulfilment of the Divine promise, that while the earth remaineth, seed time and harvest, and cold and heat, and summer and winter, and day and night, shall not cease. We all expect a harvest if we plant and sow, and however toilsome the occupation of the tiller of the soil, all are cheered on by the hope of a bountiful remuneration. How, then, can we secure the greatest return for our labor, is the great question for every man to ponder. The past season gave us a short hay crop; prices hereabouts were high for that article, and many sold stock at low prices rather than purchase provender for them. I think it can be made to appear that the evils of a short hay crop can be in a great measure obviated by a more judicious management of our corn crop, from beginning to end. I therefore present the matter previous to the usual planting season, so as to give those who are disposed an opportunity to test the suggestions I now make. To many, the suggestions are not new, but to a majority I suppose they are, if we are to judge from their prevailing practice.

It has become a fixed fact with me, that the fodder from an acre of corn is worth more than an acre of grass yielding two tons, to feed to stock upon the farm. This result is attained by planting thicker than most do, and cutting the corn by

the ground, when sufficiently hardened, and putting it in large shocks to cure. I generally plant forty-two by twenty inches, leaving three stalks in a hill, from which I generally harvest from fifty to seventy-five bushels of corn to the acre. On one occasion I harvested from one acre and one hundred and fifty rods, one hundred and seventy-two bushels. This piece was planted 18 X 36. The yield of fodder was very great.

I state the yield of corn for the purpose of answering a prevailing notion that corn will not yield good crops planted so close together. For more than twenty-five years I have put corn in shocks, containing from one and a half to two bushels of ears without any serious injury at any one time. Once, a long, wet, warm period of weather caused some to mould, but not as bad as much that was standing in adjoining fields. I have often shocked when the dew was on, and even raining. Not one-half the risk as in wilting the fodder previous to shocking, as it will then pack so close as to prevent the free circulation of the air, which is not the case when put up green or wet. As the stalks wilt, they shrink, and thus the shock is open for the air freely to act through them. Another advantage of large shocks is, there is not so much waste by outside exposure as in small ones. Some recommend putting but a half-dozen hills into a shock, some a little more. Such shocks must of course expose most of the fodder to the elements, greatly injuring it.

When the corn is sufficiently cured, I generally husk in the field, binding the stalks in bundles of suitable size to handle easily, setting two rows of shocks together, and let them remain until ready to stack, or house them, as you prefer.

The important question now is, how to use this fodder to the best advantage? I will not attempt to show the fallacy of any practice, but simply state what appears to me the best method I know of. I saw a machine for chopping stalks the past winter in Daniel Sisson's barn, in Rhode Island, that was operated by horse power, which would prepare, in two hours, enough feed for forty or fifty head of cattle for twenty-four hours use, a man and horse doing all the work. The Lonsdale manufacturing company feed forty cattle, and use the same description of machine, requiring the same time and force. Cattle eat this chaff all up when mixed with a very little shorts or meal, and cows will give more and better milk than when fed on hay. By resorting to the methods I have indicated, I see not but we can keep our stock as well as farmers usually do, and much more of it.

For a number of years past I have used a stalk cutter which cuts them into two or three inch pieces, and I found the stock would eat up all but the big pieces, which I threw under them for bedding. This I think economy, but not so good as chaffing. The chaffing machine I have alluded to, is made at Harrisburg, Pa.

K. O.

*Rochester, April 16, 1861.*

**SETTING MILK.**—Cream can not rise through a great depth of milk. If, therefore, milk is desired to retain its cream for a time, it should be put into a deep narrow dish; and if desired to free it of cream, pour it into a broad flat dish, one inch in depth.

*For the New England Farmer.*

### SMITH'S BUTTER-WORKER.

MR. EDITOR:—I have noticed of late that considerable has been said in regard to churns, by the agricultural press. Allow me through the columns of your valuable paper to say a few words in regard to Smith's Premium Butter Worker, which, in my opinion, is the *ne plus ultra* of butter-making machines. In preface, let me say that I am wholly unacquainted with the proprietors of this machine, neither have I any interest in it, farther than I have in all good labor-saving machines.

The first I saw of this machine was at Milford, N. H., at the county fair, and through the politeness of the exhibitor I was shown the *modus operandi*. At the first glance I was favorably impressed with its neatness, simplicity and apparent durability. It is claimed for it that it will churn as well, and as quick, as any churn in existence, and that it will work and salt butter as well as can be done by any other process, with one-fifteenth part of the labor. Now, Mr. Editor, if this is so, is it not one of the *best* machines for butter-making?

Before me is a copy of the Albany, N. Y., *Country Gentleman*, dated Oct. 18th, 1860, in which is a communication from Hon. Levi Bartlett, of Warner, N. H., and in speaking of the New Hampshire State Fair, he says: "M. F. Colby, of Londonderry, exhibited a churn and butter-worker, (Smith's) which promises to become a favorite with butter-makers. He exhibited a beautiful sample of butter, a portion of several pounds churned on the morning of the 4th. The butter was churned inside of three minutes, salted, worked and moulded into pound lumps in less than ten minutes from the time the cream was put in the churn.

"Human hands or fingers had not touched the butter when exhibited, and it was none of the greasy mottled stuff that too often passes under the name of butter, but yellow, granular in fracture, solid and sweet."

This, coming from one of the most practical agricultural men in the United States, shows his opinion in regard to it. Perhaps this will elicit inquiries from some of your numerous readers which will tend to the public good.

Manchester, N. H., April, 1861. F. B. J.

*For the New England Farmer.*

### REVIEW OF THE WINTER.

December, 1860, had a mean temperature of 21.40°, being about the usual mean. The amount of rain was 1.41 inches, and of snow 6.50. It fell in seven days. There was but little good sleighing in the month.

January, 1861, had a mean temperature of 16.15°, being about 3.32° below the mean, and is the coldest January of the past eight years, with the exception of 1856 and '57. From the 11th to 13th inclusive, the mercury ranged from 1 to 30° below zero; these being the only extreme cold days in the month. The amount of rain and melted snow was 1.79 inches, and of snow 18.50 inches, being a larger amount of snow than usually falls here in the same month, consequently

the sleighing was good through the month. There was but little rain and no thaw.

February had a mean temperature of 26.50°, being 6.65° warmer than the mean; it being the warmest February for eight years past, with the exception of 1857. The eighth day was the coldest day during the winter, having a mean temperature of 22.33° below zero. At 7 A. M., the mercury stood at 33.5° below zero. This was the greatest extreme known within the past ten years. The amount of rain and melted snow was about 2 inches, and of snow 7.75 inches. The sleighing was good during the first 12 days, and but little snow fell after that.

March had a mean temperature of 23.13°, being 1.27° colder than the mean. Three mornings the mercury stood below zero 2 to 4°. The amount of rain was 3.80, and of snow 6.75 inches.

Brandon, Vt., April, 1861. D. BUCKLAND.

### CRANBERRY CULTURE---No. 3.

In a hilly country like New England, there occur many narrow valleys, winding along at the base of gentle ascents, which we call "swale" land, or meadows. Usually there is a small, crooked stream, running through them, which, in many cases, finds its source in a swamp of considerable extent above. These "runs" are often quite narrow, and have only a slight descent, and taking all things into account, are the most favorable localities to be devoted to cranberry culture. We have seen them where half a dozen hills of cranberry plants introduced, would in a few years take possession of the meadow, without flowing or culture.

One decided advantage in the occupation of such places, is the ease with which a dam may be erected, and the water thrown over the whole from a reservoir above.

Where swamps and such meadows occur, as we have described, they are usually skirted by sandy lands from which, through a succession of ages, the vegetable matter has been washed away into the lower grounds. Here, then, is an opportunity of excavating and forming the reservoir, and paying for it by enriching the sandy land with the muck. Make a ditch from reservoir to meadow, with a gate by which any desired quantity of water may be let out. In such an arrangement, the plants may be flooded in the course of a few hours while full of fruit, and thus saved from the frost, and the whole meadow may be kept covered through the winter.

If the meadow has so much fall as to require a too great depth of water at the lower end before the upper part is covered, throw a slight dam across half way down, or at any point that will obviate the difficulty. In this way we may succeed in the cultivation of the cranberry with certainty and profit because we can protect ourselves



against its two fatal enemies, the *worm* and the *frost*!

After what we have said, there is no necessity of speaking at length of the importance of flowing. It is well settled,

1. That there is no other economical way of protecting the crop from the frost.
2. That the fear of frost causes the cultivator to gather the berry before it is sufficiently red and ripe, and thereby greatly injures its flavor, and its appearance in the market.
3. That no other method than flowing has been devised, whereby the worm that attacks the blossom and deposits its eggs there can be destroyed. And,
4. By flowing the plants from the first of November, or even the early part of October, until quite late in May, or even later, they are kept from being winter-killed, or thrown out of the ground by its freezing and thawing.

In reply to the question—"How do you protect your fruit from frost?" our correspondent from New Hampshire says—"by flowing. I put on the water as soon as I am done picking, and keep it on till the last of May or first of June. To protect from fall frosts, I know of no way, unless the meadow is so situated as to have a reservoir of water above, so as to cover them when a cold night is coming."

Another correspondent says—"The ability to flow is regarded as indispensable to success, even on the Cape, not only to secure them from frost, but to keep the soil properly wet."

From the considerations enumerated, it is evident that the *first* care of the cultivator should be to select a suitable piece of land—land of the right quality, and that may readily be flowed. There is plenty of such land in New England, and in the use of any other, there is never certainty of securing a crop—as the cultivator may succeed in growing the plants to see the blossoms filled with worms, or the nearly perfected fruit cut off by frost.

*After Culture.*—We have always supposed that where land is cleared of brush weeds and grasses, it would be necessary to keep the plants free from them afterwards, but we are informed Mr. Thacher's success in Yarmouth, has been the most favorable where they were planted *in the very midst of tall grass*! He is one of the most successful cultivators in New England.

*Time of Setting the Plants.*—The most favorable time to set the plants is in the spring, between the 20th of April and the last of May. If they are set in the fall, they should be covered with water through the entire winter and spring.

*Underdraining for Cranberry Plants.*—Some

cultivators assert that meadows for cranberries must not be drained. Whether this opinion is formed from actual experiments in the two modes, we cannot say: but our opinion is, that a drained meadow, so completely under the control of the owner that he could keep the water at any given level under the surface, or above it, would present a perfect bed for the plants, and that a fruitful crop would be certain every season.

*Upland Culture.*—We have attempted the upland culture of cranberries, and so far as fruiting is concerned, have had satisfactory results on "swale" and even on sandy land. The sandy land was old, and so filled with the seeds of weeds, that in exterminating the weeds the young cranberry runners were so often disturbed as to prevent their covering the ground. On the "swale" or moist land, covered so deeply with sand and gravel as to choke down grass and weeds, the plants have nearly covered the ground in three years, and yield about four quarts of fruit to the rod. The plants were set a foot apart each way, which was six inches too far. We think every farmer who has a piece of this "swale" land may easily produce all the cranberries he would like for the use of his family, and at trifling cost.

*Cranberries from Seed.*—Cranberries may be raised from seed, but the process is a slow one, and we do not recommend it where plants may be as readily obtained as in this State. If they succeed, the growth is slow, and several years must elapse before any return is realized.

Though somewhat extended, this notice of the cranberry does not embrace anything like what may be said to present all that a beginner in its cultivation ought to have before him. He may find much in "Eastwood," or in the newspapers of the day, that is valuable.

The cranberry is one of the fruits that goes to make up our unrivalled New England list—fruits adapted to our climate and our wants, and coming into perfection through nearly the entire year. As a fruit they make home attractive, are a source of gratification to the family, and quite often of considerable pecuniary profit.

The demand at fair prices for American cranberries in foreign ports has never yet been supplied. They can be transported with little waste, so that if a tenth part of our suitable lands are devoted to their cultivation, they will become an important article of commercial value to the country.

**SENSIBLE ADVICE.**—Professor Silliman, of New Haven, recently closed a Smithsonian lecture by giving the following sensible advice to young men:—"If, therefore, you wish for a clear mind and strong muscles, and quiet nerves, and long life, and power prolonged in old age, permit me to say, although I am not giving a temperance

lecture, avoid all drinks above water and mild infusions of that fluid, shun tobacco, opium, and everything else that disturbs the normal state of the system; rely upon nutritious food, and mild, diluted drinks, of which water is the base, and you will need nothing beyond these things, except rest, and due moral regulations of all your powers, to give you long, happy and useful lives and a serene evening at the close."

*For the New England Farmer.*

**THE CORN CROP.**

MR. EDITOR:—I have frequently noticed in the *Farmer* and in agricultural reports, statements of the profit made in raising corn. A desire to know how far these statements are justified in fact, induced me last year to keep an exact account of what a piece of corn *actually did* cost, which I thought could be manured at comparatively small expense. The following is the statement, as set down in my "Farm Book :"

|  | Dr.            |
|--|----------------|
| March 10, to 1 day's work hauling muck, (6 or 8 cords) 2 men and 2 yoke of oxen..... | \$3.00         |
| March 12, to 16 loads leaves and dirt from woods.....                                | 5.00           |
| April 12, to lot of manure, (about 6½ cords).....                                    | 23.50          |
| April 12, to hauling manure.....   | 12.00          |
| April 12, to pitching over manure.....   | 3.00           |
| May 5, to 6 barrels ammonia liquor.....  | 2.00           |
| May 14 and 15, to 3 men 2 days, 1 man 1 day, 2 yoke oxen 1½ days.....                | 10.00          |
| May 16, to planting.....   | 1.25           |
| June 16, to hoeing, cultivating, &c.....   | 4.00           |
| June 16, to 235 pounds guano.....  | 9.25           |
| June 26, to hoeing, &c.....  | 4.00           |
| July 30 and 31, to 2 men 1½ days.....  | 2.50           |
| Oct. 2, to Harvesting.....   | 4.00           |
| <b>Total cost.....</b>   | <b>\$53.51</b> |
|  | Cr.            |
| By 53 bushels corn, at \$1.....  | 53.00          |
| By fodder.....   | 5.00           |
| By 29 bushels potatoes.....  | 6.90           |
| By 200 lbs. squashes.....  | 2.90           |
| <b>Total.....</b>  | <b>\$66.00</b> |
| Balance against corn.....  | \$17.51        |

The lot contained a little more than an acre, and was not hard to cultivate. The crop was considered, by those who saw it, as a very good one—more than the average for such cultivation. It should be stated, however, that a short-eared kind of corn was planted, which, I think, did not yield as much as a larger variety would have done. It will be noticed that everything is estimated so as to favor the corn; the muck at what it cost to haul it, the leaves ditto, the manure—which I happened to buy at a bargain—at what was paid for it, and interest on the land is not reckoned at all. Good manure is worth here, from seven to eight dollars per cord delivered on the land. The conclusion I arrive at is, that, under ordinary circumstances, an average corn crop in Essex county, which leaves the ground in as good condition as before it was prepared, does not pay the expense laid out upon it. The corn crop is chiefly valuable to us as a *means* of bringing land into a condition suitable for producing some other crops, and in that view may be profitable.

But raising corn in this region, as an end in itself, and without reference to future crops, will, I believe, impoverish the farmer in proportion to the extent to which he adopts that mode of management.

J. S. HOWE.

*Methuen, March, 1861.*

**EXTRACTS AND REPLIES.**

**RECLAIMING A RUN-OUT FARM—LEACHED ASHES AND STABLE MANURE—ROXBURY RUSSET.**

1. Will it be more profitable to buy leached ashes at 7 cts. per bushel, or stable manure at \$3 per cord, to haul either 2½ miles?

2. What would be the relative value of unleached ashes to leached ashes at the price above named?

3. Is it a fact that it takes more than one bushel of unleached ashes to make a bushel of leached and you therefore get better measure of the latter, as I have heard it stated?

I have a large thrifty Roxbury russet apple tree, which has blossomed profusely for the last ten or fifteen years, but the fruit drops off before it reaches the size of walnuts, so that it does not ripen generally more than a peck. G. H. C.

*East Hampden, Me., April, 1861.*

REMARKS.—1. Stable manure made from horses fed partly upon grain, and that had not been allowed to heat, would be worth more to your land, at \$3 per cord, than leached ashes at seven cents per bushel. But it would be economical to give the land a top-dressing with the ashes, even after the manure is applied.

2. We cannot tell with certainty. Perhaps the leached ashes would be worth about half as much as the unleached.

3. It probably does require more.

If the non-bearing apple tree were ours, we should thin the blossoms, or as soon as the fruit is set, pick off two-thirds of it, and perhaps take out some limbs that might be spared, or head the tree in by cutting off the ends of the branches.

**A NEW SOAP FOR WASHING CLOTHES.**

In answer to an inquiry which appeared some weeks since in the *Farmer*, I wish to state that two years ago directions for the use of borax with soap, for washing, were given in this paper. Since that period the preparation has been in constant use in our family, and all pronounce it to be superior to any patent fluid or soap. Those directions I have somewhat modified into the following recipe:

Cut one pound of common bar soap into small pieces; dissolve this in two quarts of hot water. When the soap is thoroughly melted, add one ounce of powdered borax. Heat this to boiling, stirring well. Cool this new soap, and use one pint for four gallons of water, in which soak the clothes one hour before washing. E. E.

*Newburyport, March 27.*

**CUTTING TIMBER AND THE MOON.**

In your monthly for March, "Essex" says the "experience of Mr. Baker, of Dedham, in cutting timber is worthy of great regard," but treats him in his remarks as an old fogy that is worthy of no regard whatever. If his "observation," little or great, has more reason in it than Mr. Baker's experience, I am not able to see it. I know, from experience and observation both, that timber cut in the old of the moon in February is safe against worms or powderpost, as it is not at any other

season. I never have seen, in all the remarks published, one reason for disbelieving it. If the comparison of Mr. Baker with "the man in the moon" is sufficient against facts, then the matter is settled. But I have facts to show that timber, saplings, or anything else of wood kind, is greatly affected for the better when cut at that particular season. Whether "the man in the moon," or the moon itself, or the man who wields the axe, or the axe itself, is the cause, I do not know. When "Essex" has made one fair experiment, and finds there is nothing but moon in it, then he may cry moonshine. Till then I consider him "beyond the record."

OTIS BRIGHAM.

*Westboro', March, 1861.*

#### TO PREVENT A HORSE FROM "INTERFERING."

I have taken some pains to ascertain the practice of blacksmiths in this region, and find that the almost universal remedy for interference is to pare the outside of the hoof and thicken the inside of the shoe. The object being to produce a slight outward curvature of the fetlock joint.

A remedy sought in this way, if indeed it should ever prove a remedy, would be at the expense of a firm natural step, and all beauty of action. But this is not all; for the twisting of the fetlock, and coffin joints will be very likely to produce a weakness in those parts in consequence of the unequal strain upon the muscles.

Now a much more philosophical cure for interference will be found in the reverse of the above practice. That is, paring the *inside* of the hoof and thickening the *outside* of the shoe; thereby causing the animal to assume a wider position of the feet, both in standing and travelling.

If any one doubts, let him try the experiment for himself.

C. A. WHITAKER.

*Hancock, N. H., 1861.*

#### PROLIFIC SHEEP.

In February, 1843, a sheep (part merino and part native) about six years old, belonging to T. ANDREWS, Esq., brought two lambs at a birth. In August following the same sheep brought another lamb, and suckled it into January, 1844—and in February, 1844, (about the middle,) she brought two more lambs at a birth—making five lambs within the year; all the lambs lived or were raised until fit for the butcher, and were fine healthy lambs.

There were also two other sheep, mixed breed, rather more merino than the first-mentioned, and who had each a lamb in February, 1843—in August following, each a lamb—in early part of March, 1844, one of the same sheep had two more lambs, and the other had one, making twelve lambs from three sheep in a few weeks over a year.

The lambs born in February, 1843, ran with the sheep until sold to the butcher in July, 1843. Sheep are now in good order, but have had no extra keep except a few turnips in 1843.

*Ipswich, Sept. 12, 1844.*

#### LARGE STEERS.

Mr. DANIEL CUSHMAN, of Wilmington, Vt., has a pair of steers, coming six years old, which can't be beat in Windham Co., perhaps not in New England. They are the best shaped cattle I

ever saw, and as near perfect as any creatures can be. Their weight in October last, was 5400 lbs.; in January, 5800 lbs. They now weigh not far from 6000 lbs., and are growing as fast as at any time. I understand that he intends keeping them over another year. They have had but little meal yet. They now bid fair to become the largest pair of cattle ever raised in New England. Mr. Cushman has some more very fine stock at his barn, which I have not time to notice. They are of Durham blood.

B. D. W.

*Wilmington, Vt., April, 1861.*

*For the New England Farmer.*

#### WHAT KIND OF CORN SHALL WE PLANT?

MR. EDITOR:—The above important question has been often asked. It was repeated not long since by one of your correspondents, and answered by him with great apparent confidence, that he had found the truth. I am not about to say his opinion is not correct. There are too many contingencies of soil, season, culture, etc., to allow a direct answer. But I cannot perceive a relationship so near as third cousin, between his premises and his conclusion. He takes 10 ears of eight rowed corn, 10 of ten rows, and 10 of the large twelve rowed kind—fair specimens, I have no doubt. He weighs them, shells them, and weighs the cobs. What is the result? Why simply this, the ears of the large twelve rowed kind are larger than the ears of the smaller eight rowed kind, and have more cobs in proportion to the corn. There are varieties of the twelve rowed corn both small and early, more so than some of the eight rowed, but these are not the kinds in question, as is evident both from the common use of the terms and the results of the experiment.

Suppose, sir, you take ten Durham oxen and ten Devons, or ten South Down wethers and ten Merinos, and find that the Durhams and South Downs are heavier than the others. What have you proved, except that the larger kinds are larger than the smaller. You have proved that your selection was a fair one, as the results are in accordance with the known laws of the species.

But your correspondent having proved that ten larger things are larger than ten smaller ones, goes on to suppose that each hill will produce five *such ears*, &c. Ah! "there is the rub." *Will* each hill, or each rod, of the different varieties produce five, or the same number whatever it may be, of such ears?

The advocates of the small and early varieties of corn admit fully the truth established by the experiment of weighing, &c., and put against this three items deduced from observation and from the known laws of vegetable life.

1. The smaller varieties will bear planting much thicker. No man puts out dwarf pear trees at the same distance he would standards, or the early York cabbage and the Drumhead with equal spaces. So an acre of ground will carry to full perfection, at least one-quarter more hills of the common eight rowed corn than of the large twelve rowed variety.

2. The same number of stalks, other things being equal, will bring a much larger number of ears. There seems to be a regular gradation from

the largest kinds, to the little popper, stuck full of ears from the ground to the tassel.

3. In a succession of years, on account of early and more perfect maturing, the whole crop, hard and soft, will be worth much more by the bushel.

Now, sir, if this article does any one any good, I suppose it will be by leading him to think. He will study the laws of growth and maturity of the different varieties. He will not approve or condemn indiscriminately. If he has a dry, rich soil, and can plant early, he may venture the large kinds. If, on the other hand, his land is cold, the season late, and the location one exposed to early frost, prudence will dictate a different course.

One fact I cannot say, which variety has received the most premiums, but I can say, that in the Berkshire societies the first premium has often honored the eight rowed variety, the test question being "the best acre of corn."

*Pittsfield, April, 1861.*

S. REED.

*For the New England Farmer.*

### THE LESSON TAUGHT BY IRISH HUSBANDRY.

BY JUDGE FRENCH.

"In the day of adversity consider," is the admonition of the Preacher, and possibly now, when the heart of every patriot sinks within him, with shame at the disgraceful position of a portion of our country whose Union was until recently our pride and boast, possibly now, we may be humble enough to conceive of the possibility that, as a nation, we are, in our agriculture, tending to destruction. Ireland, "First flower of the earth, first gem of the sea," is an illustration of the ruin which bad husbandry may bring upon a people. Ireland has a better soil and better climate than England. No country in the world equals it for pasturage. "The south-west coast," says a reliable writer, "enjoys a perpetual spring, owing to the ocean currents that set in from the tropics. Myrtles there grow in the open air, and the arbutus or strawberry-tree is one of the commonest of shrubs."

Prior to the famine of 1846, the *rural* population of Ireland numbered about twenty-five persons to each hundred acres of land, while it is but twelve in England, and fifteen in France.

The country was cut up into small farms, there being 300,000 farms of less than five acres each. A system of dividing the leased land among the children prevailed. The owners of the soil lived away from it, in England, or elsewhere, leaving agents to manage it in any way they pleased to get the most rent for the time, and send to the landlord to expend in foreign lands. The whole object was not to improve the soil, but to plunder it.

No improvements of a permanent character were made, no system of rotation was adopted, but every tenant was allowed to get what he

could from the land. One expedient adopted was a sort of partnership, termed *Rundale*, in which a village of a hundred or more rented a tract of land together, using the pasturing in common, and each year dividing anew the arable land, so that it was for the interest of each to get annually what he could, with no interest whatever in the next year's crop. The only capital was human labor, few carts or wagons being employed, and the manure and crops even being conveyed either by men and women, or by donkeys in panniers. Potatoes yielding by far more sustenance per acre than wheat or other grain, were the principal crop.

The English government beheld with apprehension the approaching ruin, and devised various plans to avert it. It was manifest that a redundant and rapidly increasing population upon a soil growing yearly less productive, must bring upon itself starvation and ruin. Then came the potato disease, and with it the famine, which carried off by actual starvation and attendant diseases more than a million of this ill-fated people more than one-eighth of its whole population.

And now let us look at home, at

#### A PICTURE OF FARMING ON THE PRAIRIES.

And this was the natural result of bad husbandry, of relying on a single crop without rotation, and of plundering the soil for present gain with no regard to its future condition.

The *Country Gentleman* published a letter from which the following is taken.

"I enclose you a copy of a letter from an Illinois farmer, who was brought up to the business from a boy, in a good agricultural region in one of the counties bordering on the Hudson river, and was successful before removing West:

"Regarding farming here, you already know the first two or three years we met with heavy losses by trying to raise wheat. The first fall I sowed 150 acres at an expense of \$3 per acre—the spring following, 40 acres, thinking it best to try both winter and spring varieties. It yielded about 20 bushels per acre, and sold for 50 cents per bushel, hardly paying first cost, including harvesting and threshing.

"Next fall I sowed 80 acres more, which proved a total failure. I then went on and prepared 180 acres during the fall for spring sowing. When spring came the weather was favorable for early sowing, and I had it all in nicely by the last week in April.

"About this time it began to rain, and continued until Illinois was most all afloat, up to about the 20th of June. Then we had several weeks of dry and hot weather, which gave the wheat not already rotted a chance among the greatest growth of weeds you ever saw. On the upland the weeds yielded somewhat to the wheat, but took full possession on far the greatest portion. The result was that the wheat harvested and threshed did not pay for the labor of doing it, saying nothing of the cost of sowing. That fall I fell in debt \$500 for labor and materials used, besides the expense of living. But I went on, and put 120 acres to winter wheat again. My teams were poor from wallowing in the mud, and from scanty feed, and had to go into quarters in this condition, with a chance only at coarse, flashy hay, and a little poor corn through the winter. You can judge how they must have looked in the spring.

"My young cattle, with similar food, and exposure to cold, drenching rains, were very thin. But most of them lived through, and having no land prepared for spring crops, I concluded to change my plan, and try corn and cattle. Some of my ox teams were sold to meet most pressing wants—a rigid system of economy adopted, and with all the corn I could reasonably get in, I commenced another year. Wheat grew finely, chinch bug damaged it some, but it matured and yielded more than enough to pay expense of raising, selling it at 60 cents per bushel. So with my corn and some fat steers I shall make a better season than ever before, paying some of the losses of preceding years."

"This is a correct history of the efforts of an intelligent farmer, whose habits are unexceptionable, and who could have had no idea of anything but success when he undertook farming on prairie land."

The above is not given as an illustration of the general result of prairie farming, but only to illustrate the fact that no capital is employed in Western agriculture. The whole cost of putting in 150 acres of wheat is set down at three dollars per acre, and the crop of *twenty bushels to the acre hardly paid the first cost!* The land was plundered of an exhausting crop, and nobody benefited, and millions of acres are treated in substantially the same way every year. It is doubtful whether, under the system practiced in any new States, the country is not the poorer by nearly the value of all the wheat produced! If we cut off from a farm all the wood and timber, and send it to market, we know that, by so much, the actual value of the land is lessened. Is it any less certain than when we take out of the land the elements of fertility, in the form of corn and wheat, and send them away, never to be returned, we in fact send away the soil, and sell the very capital which produces our annual income?

#### CAPITAL NECESSARY IN AGRICULTURE.

The distinction between good and bad husbandry might almost be said to be, that the former increases, while the latter lessens the productive capacity of the soil. A farmer in England who hired a farm of 1000 acres, assured us that he employed \$50,000 in stock, implements, labor, manure, and the like, to conduct his farm profitably. His crop of wheat, usually 250 acres, averaged nearly thirty bushels to the acre. The wheat crop over all England averages about 28 bushels to the acre, while in the United States, it averaged, by the census of 1850, but 9½ bushels, in the States of New York and Indiana, but 12, in Illinois but 11, in Iowa but 14, and in no State above 16 bushels to the acre.

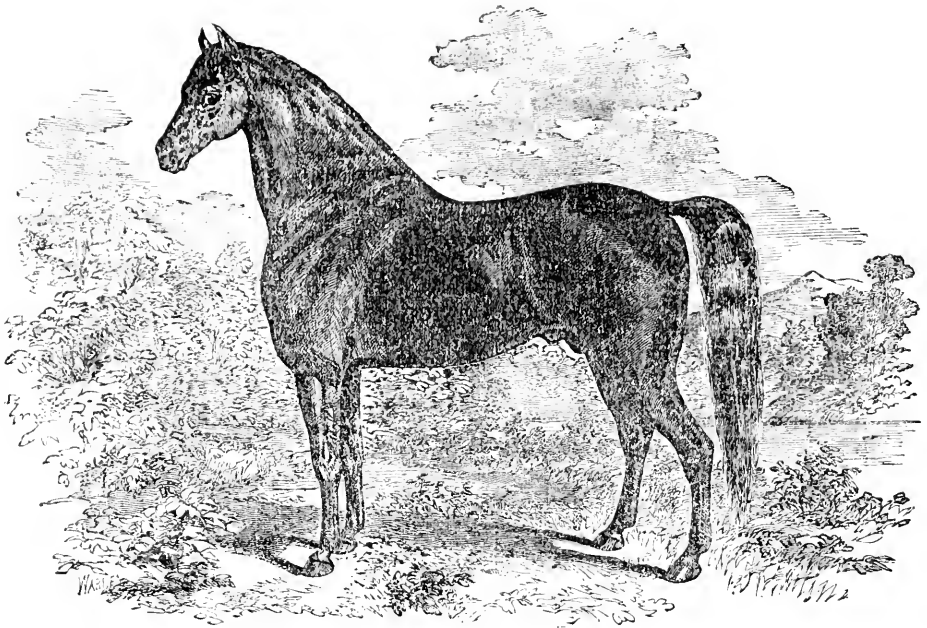
Ireland, at the time we speak of, was like an exhausted, worn-out farm. To have furnished that country with the capital which she lacked in sheep alone, as compared with England, would have required *one hundred millions of dollars*, and double that sum to have stocked the farms equally with England with other kinds of cattle! A French writer, who has carefully observed the

agriculture of his own country and that of Great Britain, says that fifteen hundred millions of dollars, which, by the way, is not quite fifty dollars to the acre, would not, in 1846, have furnished Ireland, as an agricultural country, with the capital actually invested in England in the improvement of her soil. The general aspect of the two countries supports this assertion, astounding as it may seem. While the traveller in England beholds on all sides, magnificent estates, with castles and palaces, and spacious parks filled with cattle and sheep and deer, and beyond, and all around, substantial farm-houses, in the midst of extensive fields waving with grain, or verdant with vegetable growth, or clothed all over with cattle and sheep, while on every side springs up to view, evidences not only of present prosperity and plenty, but in the fine old trees—in the cathedrals—in the permanent bridges and well-built roads, are seen the proofs that affluence has long prevailed, and men have had time to care for posterity—in Ireland, nothing like this is seen. There is enough of verdure to indicate the natural fertility of the land, but in passing through its whole extent, except near the large towns, we scarcely beheld an ornamental tree, or a fruit tree, or a hedge. The country looks sad and desolate. The miserable hovels of the laborers, the small holdings, now being united into larger estates, the want of substantial farm structures, and of the fat and heavy teams of England, give one the impression of poverty now, and poverty long endured, of a country whose people in their struggle for existence, had given no thought to anything beyond the bare necessities of life.

Within the past few years, under an Act of Parliament for the sale of Incumbered Estates, the lands of Ireland are changing hands, and passing into the possession of a class mostly of Irishmen, but of men who have capital to employ on the estates which they purchase for their homes, but generations of prosperous and energetic labor must pass by, before this abused and worn-out country can be restored to fertility. In the history of Irish agriculture and its train of evils, let us learn the lesson taught so plainly, that a system which impoverishes the soil, must at last bring poverty and ruin.

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TURNING AND BORING GLASS.—The London *Magazine* states that John Chedgely, of that city, has succeeded in turning and boring glass, and has thus rendered it more applicable to a great variety of useful purposes. He makes glass cylinders perfectly round and smooth; also very strong glass pipes as substitutes for metal in conveying acids and alkalies, and his cylinders are eminently adapted for the barrels of pumps. Glass tubes of moderate bore are quite common, but they are never made with a uniform size of bore.



THE ORIGINAL BLACK HAWK.

Through the kindness of CHARLES L. FLINT, Esq., Secretary of the *State Board of Agriculture*, we are enabled to place before the reader the most beautiful and perfect portrait of the famous horse *Black Hawk* that has ever been given of that far-famed animal. We have never looked upon any other horse with so much admiration as we have upon *Black Hawk*. His intelligence was equal to his beauty, and his splendid action corresponded with his other remarkable qualities. We fear that it will be a long time before we shall look upon his like again. Some of his descendants are of rare beauty and action, but it would be wonderful if they possess that combination of beauty, grace, courage, speed and endurance, which the old hero bore so proudly.

The description of *Black Hawk* which follows, we copy from the Report on Horses, by Prof. W. S. CLARK, given in the volume of *Agriculture for Massachusetts*, for 1860.

The famous stallion, *Black Hawk*, is thought, by some, to have been got by Sherman Morgan out of a half-bred English mare, said to have been raised in New Brunswick, and to have been of a black color, a fast trotter, and a very fine animal. This horse was foaled in 1833, in Greenland, New Hampshire, and when four years old, was purchased for \$150, and used as a roadster by Benjamin Thurston, of Lowell, until 1844. As he was a beautiful, spirited horse, able to trot

his mile in two minutes and forty seconds, and as the few colts he had got proved remarkably promising, he was then bought by Major David Hill, of Bridport, Vermont, who kept him until his death in 1856. *Black Hawk* was about fifteen hands high, and weighed nine hundred and fifty pounds. His skeleton is preserved in the Museum of Natural History, at the State House in Boston. He was a horse of almost perfect form for a roadster, compact, symmetrical and muscular, and possessed of most beautiful head, neck and limbs. He was active, elegant, spirited, and pleasant, and marked his offspring with his own peculiar excellences and characteristics, even to color, more decidedly, perhaps, than any other American horse. His numerous and justly esteemed descendants constitute the best breed of roadsters ever known, combining the intelligence, courage, elegance, life and endurance, of the thorough bred horse, with sufficient bone and substance, and the finest possible trotting action.

**THE CYLINDRICAL MEAT MASHER.**—In the April Monthly we gave an illustration and description of a little machine for mashing beef steaks to make them tender and eatable, but stated that we *had not used it*. Since that time it has been used whenever we have been so fortunate as to be in possession of a beef steak, and under its operation we find the meat tender and juicy. It mashes the steak without squeezing out the juice, and when over the fire admit the heat

to every part, so that it may be broiled in a short time and retain all its juices. It might not, perhaps, suit all boarding-house keepers, but for the family who would like a tender and juicy steak, it is an excellent article.

*For the New England Farmer.*

#### THE CULTIVATION OF MUCK OR PEAT MEADOWS.

Although much has been said and written in favor of reclaiming and cultivating these lands, and much labor and capital has been spent in their subjection, yet it remains a question in the minds of many intelligent farmers, whether the time and money thus spent are, on the whole, profitable investments.

Some experienced farmers of my acquaintance have made experiments upon these lands, until they are convinced that the business does not pay. The meadows have been properly drained, the thin layer of moss, roots and wild grasses removed from the surface; the land has been plowed or chopped over, a sprinkling of sand, loam, or clay applied, and seeded down. For two or three years, there would be a tolerable crop of English hay, but after that time, the natural grasses would spring up again, and root out the foreign kinds. But a few years would elapse, before the meadow would be less productive than it was while in its natural state. Means were taken to arrest the growth of the wild grasses, but they did not have a permanent effect.

To spread a coat of gravel or sand upon the meadow of a thickness sufficient to kill the original grass roots, would require an amount of capital which but few farmers have to spare; and in addition to the above expense, the upland soil would have to be robbed of a portion of its fertile matter, to form an artificial soil upon this bed of gravel, or nothing would grow. This mode of operation is also one of extremely doubtful utility. From my own observation and experience, and from that of others well qualified to judge, I have come to the conclusion, that if the same amount of labor and capital which is annually expended in the cultivation of these meadows, was employed in subsoiling, trenching, draining, and manuring uplands of average fertility, the farmer would receive double, if not treble the amount of profit.

Nature is ever ready to assist man when he does not transgress her laws, but these laws are transgressed when he attempts to rear upon muck or peat meadows, plants or grasses, which naturally grow *only* upon the dry land.

The cranberry crop is the only one within my knowledge which can be profitably raised upon these meadows. The present market price of this fruit should be a sufficient inducement, it seems to me, for the owner of such lands to commence its cultivation, if he has a good stock of patience and perseverance to carry it through. But the principal purpose for which these places were formed by the all-wise Creator, is just beginning to be generally understood.

It is found that muck, when properly applied to almost every variety of upland soil, will produce highly beneficial results upon all kinds of

plants, grasses, and fruit trees. In the renovation of old, worn-out pasture lands, I have not the least doubt, that an application of muck, after it has been thrown out a year or more, and become finely pulverized, and mixed with a small proportion of potash, soda ash, or common wood ashes, would have an extremely beneficial effect. Has any one ever given this mode of operation a fair trial?

Do you think, Mr. Editor, that if a farmer has a few acres of muck meadow, he can put such land to a better use, than to keep it in reserve, as a source from whence to draw a yearly supply of fertilizing matter for the benefit of his uplands?

As this is a subject of great importance, it is hoped that all who have had practical experience concerning it, will give to the readers of the *Farmer*, the result of their observations.

*South Groton, 1861.*

S. L. WHITE.

REMARKS.—The plan of our correspondent of mixing old meadow muck with some alkaline substance, as a dressing for pastures or fields of sandy loam, is an excellent one—and a muck bed held in reserve for this purpose, is valuable property.

Whether we shall reclaim our muck meadow, however, depends upon circumstances. Some of the best, and most profitable lands on the farms all about us, were reclaimed muck meadows—no other lands of the farms pay so good an interest, taking into account the original value of the land and the cost of reclaiming. But they will not all do this. It must depend mainly upon the cost of reclamation.

*For the New England Farmer.*

#### POUDRETTE.

MESSRS. EDITORS:—I have for several years experimented with the various fertilizers recommended to the farmers for their wonderful effects on vegetation, and have been sadly disappointed. Last season I was induced to purchase four barrels of "The Lodi Manufacturing Company's Poudrette," which I used principally on my corn crop. For many years my practice has been to plow or harrow in the manure, and apply some concentrated manure in the hill, to give the crop an early start.

I have found guano and the superphosphates, however carefully managed when put into the hill, are apt to injure the seed and prevent its germination; not so with poudrette. Last season I applied it to the corn in the hill with perfect safety, and with the most satisfactory results; the corn came up well, grew vigorously, and had at least ten days the start of the corn where no poudrette was applied, and notwithstanding the early frosts injured our crops seriously, yet I am satisfied that a much larger portion was fully matured where the poudrette was applied, than on the other part. In fact, I consider it one of the cheapest concentrated fertilizers extant, and shall use it extensively the present season.

HORACE COLLAMORE.

*Pembroke, April 26, 1861.*

*For the New England Farmer.*

### FENCES AND PASTURES.

MR. EDITOR:—In relation to the profits of farming, a question which has been so much discussed recently, it is evident that whatever tends to diminish the expense, without lessening the income, must, in like proportion, increase the net profits.

Many of our farmers might accomplish much in this way, in the item of fencing. Farmer A., for instance, finds it rather troublesome keeping his cattle in the barn all the spring, and is, perhaps, a little short of hay withal, and concludes to turn his stock out awhile each day, but frost not being quite out of the ground, or not having his other work out of the way, or, it may be, thinking his cattle can do no serious damage at this season, if they do chance to get out, he postpones repairing fences to a "more convenient season."

Farmer B., not having "finished sugaring," or cutting up his wood-pile, until near the usual time of "turning out to grass," takes a look at his fences, and patches up some of the worst spots, and thinks his cattle will not get over, at least, until he has time to repair more thoroughly; but other business crowds, and somehow it runs along till perhaps in the midst of haying, the feed becoming short, his animals look out for themselves in the corn field, or meadow, and he is obliged to leave his work to drive them out, and of course mends the fence where they broke over, but is too busy securing his hay to look farther. The cattle having once got a "taste," they must be stupid animals that do not try another weak spot.

Farmer A. goes through a similar course, only having "begun at the root;" his discipline is likely to be more effectual, and both farmers, after having spent more time in running after "trespassers" and patching up fences than would have been required to mend the fence so as to have been absolutely safe, find themselves with a set of unruly cattle on their hands, to say nothing of the damage done to corn fields, gardens and orchards, or of the effects on the temper of the farmers themselves.

Overstocking pastures, too, is a common fault. I believe that, in most cases, more profit would be realized by reducing the stock ordinarily pastured in this State to two-thirds the present number, (and this will apply to winter keeping in many cases,) and of course diminishing the labor of taking care of them by nearly one-third. We should then hear less of old worn-out pastures, and less inconvenience would be experienced from drought, both from the fact that such land would be better protected from its effects, and the surplus feed which might be made use of in case of necessity.

There is room to effect another considerable saving on our cultivated grounds. Nothing is more common than the disposition to measure the area for cultivation by the desired amount of crops as income, rather than by the amount of labor which can be applied in the growing season, which should be the rule.

No farmer should attempt to cultivate more land than he has time to keep entirely free from weeds, after making due allowance for hindrances from unfavorable weather, unexpected interrup-

tion, &c. I am fully satisfied that no more land should be devoted to the corn crop, than can be made to yield from 60 to 80 bushels to the acre, under all ordinary circumstances. Whatever is attempted beyond what the above rules indicate, will generally increase the expense, leave the land in bad condition, and give no increase in the present crop.

WM. F. BASSETT.

*Ashfield, April, 1861.*

*For the New England Farmer.*

### SUGAR MAKING.

When in mute prophetic murmurs  
Blithely sway the branches bare,  
Prophecies of coming summer,  
Wrought in the mysterious air,  
Ere the bright seed-time is come,  
High we raise our "Harvest Home."

When the blue-bird and the robin  
By the breath are born of spring,  
And we pause full oft to listen  
To the strains these songsters sing,  
Sweeter things our senses thrill,  
Sweets that flow from "Sugar Hill."

Ere the lowly, loved Arbutus  
Springs amid the parting drifts,  
Or the early blossoming crocus  
To the sun its brightness lifts,  
Sweeter thoughts than those of these  
Dwell amid the maple trees.

RUSTIC.

*Sugar Hill, April, 1861.*

*For the New England Farmer.*

### WASTED MANURE.

MR. EDITOR:—Perhaps it never occurred to many of the readers of the *Farmer*, what a vast amount of manure is wasted every year, all of which might be saved, by a little forethought and judicious management. The old proverb has it, "A penny saved, is worth two earned," and no doubt the rule will apply to manures, as well as pennies, and here is my plan for saving it. Here in Vermont—and we presume it is the case in other places—many of the barn-yards are so situated, that while the snow is melting away, as well as in rainy times, there is quite a stream of water running through the yard, leaching and washing away the best part of the manure. And with regard to many of the old-fashioned barns, which have no cellars, the manure is thrown out of windows directly under the eaves of the barn, and there it lies, often all through the summer, soaking and washed with every shower. This should not be so; no farmer can afford to lose so much as is lost in this way every year. Every barn should either have sheds, or a cellar attached, in which to deposit the manure, and every yard should be highest on the outer edges. But if this is impracticable, let small trenches be dug when the ground first thaws, or furrows may be plowed in the fall, which should have various branches, and in this way the washings of the barn-yard may be carried some distance, and in all directions. The effects of this plan of irrigation will be visible all through the season, and satisfactory results obtained, often increasing the hay crop one-half.

Not only water which has been filtered through



the manure heap, but brook water, turned out of its natural channel, both on low meadow and dry land, will increase the hay crop greatly. The little streams which course down our hill sides, in spring time, if turned out of their natural courses and allowed to spread over the barren knolls, would be found to be great fertilizers. Old pastures are benefited by this mode as well as fields. I have tried both draining and flowing wet grass meadows, and unless they can be drained dry enough to plow, say turn on the water. If possible, let sand be washed on with the running water.

T. P. BAILEY.

Newbury, Vt., April, 1861.

For the New England Farmer.

#### WASH FOR PEAR BLIGHT AND CURCULIO.

MR. EDITOR:—In the latter part of July, 1859, I noticed the leaves on a Beurre Diel pear tree, (of some dozen years growth,) were beginning to turn black, and in a few days when I next saw it, I was surprised to find nearly three-fourths of its foliage in the same condition. Thinking it might be the work of some minute insect, which I tried in vain to discover, I syringed it with a lime wash which I was using to protect my plums from the curculio. This I repeated every morning for three or four days, which arrested the further progress of the disease, but left my tree denuded of most of its foliage, while a fair crop of fruit remained on the tree, but did not mature, and was quite worthless. In the spring of 1860, the tree blossomed, leaved out, and presented its usual healthy appearance; but again in July, the same disease reappeared, and I at once commenced the same treatment as the previous year, saving the foliage and fruit, which matured in its usual perfection. The wood and bark appeared to be perfectly sound both seasons, and although this tree was surrounded by many others of different varieties, none of them were similarly affected. I have been unable to detect any adequate cause, or to recognize any disease described by Downing in his book on Fruit Trees, in the case I have mentioned, and my only object in bringing these facts to your notice, is to ascertain if I may, from you, or some one of your contributors, learn the probable cause of the malady, while I give you the result of my treatment.

I will here remark, that I have found that a wash, made of a piece of quicklime the size of a quart measure, put to a half-barrel of water, stand two days and then well stirred, is a sure protection for the plum, from the attacks of the curculio. It should be applied very soon after the blossoms fall, and repeated as often as once a week or ten days, until the fruit is fully grown. With a common garden syringe, a good sized tree may be completely covered with the wash in a few moments; I believe the failure of this remedy will be owing only to its imperfect application, or the solution being made too weak to be distasteful to insects. I raised a fine crop of Blue Gages last season, on a tree which has been stripped of its fruit every summer for several years. I believe the frequent use of this wash promotes the health and vigor of the tree.

Brookline, April 16, 1861.

J. R. B.

#### EXTRACTS AND REPLIES.

##### CORN AND COB MEAL.

There has been much said in the *Farmer* in regard to using corn and cobs ground together for feed. I do not pretend to know how much nutriment there is in the cob, but I cannot say as Dr. Brown does, that it is worthless for hogs. For the last twelve years I have fattened my hogs (or rather pigs, for I winter no hogs) on cob and corn meal. I buy my pigs early in the spring, say in March, feed milk the first month, then add a little of the corn and cob meal, and increase it as they will bear it until I slaughter them, about the first or second week in December, weighing from 300 to 350 lbs. I feed them no other meal. I am a miller, and grind my own feed. It is the universal practice of my customers to have their corn ground in the ear. Some of our best farmers have ground twenty bushels of clear cobs at one grist for feeding their store hogs, giving them no other meal, clear cob meal answering a good purpose. If the corn and cobs are ground as they should be, there will be no sharp, flinty scales or shells, and it can be fed as safely as corn or shorts.

A. P.

Buckland, April, 1861.

##### AN INTERESTING ACCOUNT OF A LARGE HOG.

Not having seen any notice in the *N. E. Farmer* of the large hog raised at Oak Hill Farm, owned by Richard S. Rogers, Esq., South Danvers, I am induced to hand you annexed, a minute account of his weight, &c., for the columns of the *Farmer*.

|   |
|---|
| 2 years 10 months old.                                |
| 7 feet 2 inches girt.                                 |
| 3 " 3 " height.                                       |
| 8 " from tip of his nose to root of his tail.         |
| 10 " from tip to tip.                                 |
| 1108 lbs. live weight.                                |
| 1060 " after being bled.                              |
| 43 " loss of blood and water.                         |
| 1060  |
| 1054 lbs. after being dressed of his bristles.        |
| 6 lbs. loss by bristles.                              |
| 1054  |
| 944 lbs. when dressed.                                |
| 110 lbs. loss by offal.                               |
| 944   |
| 40 lbs. rough tallow.                                 |
| 984   |
| 16 lbs. harslet.                                      |
| 1000 lbs. net weight of hog.                          |
| 1108 lbs. live weight.                                |
| 1000 " net weight.                                    |
| 108 lbs. shrinkage, or only 9 $\frac{1}{2}$ per cent. |

The hog was slaughtered by me, and if the weather had permitted, might have been made to weigh 200 to 300 pounds more, in being kept a few weeks longer.

CHARLES D. TILTON.

South Danvers, March 29, 1861.

##### COOK'S SUGAR EVAPORATOR.

In reply to your correspondent from Henniker, N. H., I will say that Messrs. Blymgers, Bates & Day, of Mansfield, Ohio, manufacture "*Cook's Sugar Evaporator*," and they can be obtained of them, or from A. S. Clark, agent, Bellows Falls, Vt. The kind I use, No. 3, galvanized iron, costs

\$55; copper, same size, \$65. As to the evaporator, I have to say that I have used it the second year, and am thoroughly convinced of its utility. I have reconstructed my sugar-works, and as now arranged, heat the sap from the fire of the evaporator. I have a sheet-iron pan, 5½ feet long, 3½ feet wide, that receives the fire from the evaporator, which is set with a partition underneath, so that the fire goes twice the length of the pan before it reaches the chimney.

With this arrangement I can boil from 30 to 40 bbls. in 24 hours, and at the same time make the best quality of sugar, I should not be willing to undertake to make sugar without one of "Cook's evaporators."

GEO. CAMPBELL.

West Westminster, Vt., April 15, 1861.

#### TIME FOR PRUNING—THE BORER AND CURCULIO —A COVERING FOR WOUNDED LIMBS.

I wish to inquire the best time for pruning apple trees, and the reasons for the different opinions upon the subject; and for the best varieties of apples, for a limited number for New England cultivation. Also, information upon the habits and ravages of the borer and curculio, as connected with the culture of apples. What is the best composition to apply to the stocks of apple trees from which large limbs have been removed?

REMARKS.—Prune apple trees in the middle of June, or immediately after the fall of the leaf in October. For reasons, see weekly *Farmer* of April 13, or the forthcoming number of the Monthly for May.

#### HOW TO BUILD AN ARCH.

I wish to inquire through the *Farmer* how to build an arch to set two pans, each 5 inches deep, 28 inches wide, 45 inches long, for boiling sap. 1. How should an ox-bow arch be built? 2. How high should the pans be raised? 3. How should the front of the arch be built and not have the chimney in the way of the fireman. 4. How high and large should the chimney be? 5. Should there be a door, if so, how made; will it need a damper, and how large? I wish some of your numerous subscribers would give the information needed.

AN OLD SUBSCRIBER.

Addison Co., Vt., April, 1861.

#### IS IT BENEFICIAL TO THE SUGAR MAPLE TO PLUG UP THE HOLES AFTER SUGARING?

There seems to be a variety of opinions in this vicinity; some say that it makes the tree rot worse to plug it up than it does to leave it open.

G. W. D.

P. S.—We have just had another severe New England snow storm, and it is very good sleighing to-day, the 18th.

Windham, Vt., April 18, 1861.

#### DRIVE PIPE FOR HYDRAULIC RAMS.

I wish to inquire of you, or of any who can tell me, through the *Farmer*, what pipe is best, inch and one-fourth in size, to drive a No. 4 hydraulic ram. I put one in operation last fall with twenty-six feet of inch and one-fourth drive pipe—weighs three pounds to the foot, with nine feet head or fall. The water is raised and discharged

sixty-four rods from the ram, at an elevation of fifty-nine feet. I think the ram would work well if I could procure a drive pipe strong enough to drive the ram.

E. C. ALLIS.

Whately, April 15, 1861.

#### PROSPECTS OF THE SEASON.

Gloomy and forbidding; all Nature harmonizes therewith—wars and rumors of wars, treachery and rascality abound. No warm and sunny days as yet. No appearance of expansion of buds on the trees. Grass hesitates in starting, begins to yield a little to the drizzling rains now falling. Must live on hope, if we live at all—always remembering, that "hope deferred maketh the heart sick." Some are starting with their knapsacks on their back, and guns in hand, not knowing where their services will be required, nor why, but always true to the spirit that animated their grandsires, in times gone by, and while this feeling survives, the country is safe—and the harvest is sure.

ESSEX.

April 22, 1861.

For the New England Farmer.

#### SHORT NOTES ON NEW THINGS.

I perceive it is quite common for some of your correspondents to make brief notes on sundry articles in the *Farmer*—a good custom, by the way, if only pursued disinterestedly.

In the *Farmer* of the 9th inst, you give an account of a cylindrical *Meat-Masher*, which looks really as though it would operate, and if it will do what the proprietor claims, *i. e.*, "make the toughest meat equal to the most tender," it will prove a decidedly desirable institution.

Next you have a *Rotary Harrow*. I have seen several of these, of different patterns, and don't think they will work well, unless upon soil decidedly free from stones and every other obstruction, and would advise your readers to look well before leaping—here.

Again; you have *Hungarian Grass*. The writer raised this grass a year or two, and came to the conclusion that it would not pay to plow up grass land, that yielded even a medium crop, for this grain, or grass, which we know is only an annual. Look out for those who have seed to sell.

An article on *Dogs and Sheep* meets with my most hearty approval. We want our laws more stringent upon dogs and dog-raising, and giving the man who has losses by them, some way in which he can recover, or else we must give up sheep husbandry entirely. Only a few days since, a neighbor lost twelve or fifteen fine sheep in this way; caught the dog in the act, which, as usual, was found to be owned by a man of no pecuniary responsibility, and consequently he will get no remuneration for his loss.

*Influence of Farm Employments*.—The writer says truly, "If anything, farming requires more skill and science than any other pursuit." This is mainly true, but enterprise and indomitable perseverance accomplish much, here. Indeed, I was about to say, a man can succeed in almost any pursuit, if he only has a sufficient quantity of *Snaps*.

W. J. P.

Salisbury, Ct., April 18, 1861.

*For the New England Farmer.*

### WHEAT CROP.

The excellent article and commendable spirit of your correspondent "E. C. P.," on the subject of wheat-growing, cannot fail in part to enlist the cordial approval of the farmer. In regard to the crop of rye, it should be the last crop he should cultivate, or merely enough for family brown bread. The same soil and labor will give more bushels of winter wheat than rye—then why not sow wheat? But your correspondent says—"I know the wheat crop fails three times where corn fails once," that it is "an uncertain crop." In answer to this I beg to say, while the corn crop is almost a sure one, barley and oats often mildew, and the same danger attends the maturing of spring wheat, yet the chances are about equal. Warm land, early sowing and plenty of horse manure plowed in, will almost insure a crop. In regard to winter wheat and the mischances of winter killing, this should be considered as no discouragement; it can be avoided by getting into the ground early, to the depth of two or three inches—well rooted and a good fall growth will insure a crop five years out of six, without winter-kill, in your region.

In regard to phosphates and the crops of the West and Western New York, if they would apply barn-yard manure on soils that are capable of being exhausted and are exhausted, the phosphates would be returned to the soil, lime, of course, being a component part. Yet slaked lime or ashes are excellent fertilizers to harrow in, or sow after the grain is up.

The farmer, by practicing with deep plowing and manuring liberally (as above suggested) will have little occasion to employ artificial phosphates and guano, and deplore the loss of the wheat-growing properties of the soil. This is one of the long-standing popular errors of the day,—now pretty nearly exploded. Wheat will grow, (as I know by six years practical experience in good old Essex) on every farm in New England that will produce rye, barley or oats. At one dollar a bushel it pays equal to either of the cereal crops.

I should not advise the farmer to experiment on a small scale. Evidence of great success all around you, has opened the conviction that by adopting the large scale the New England States will raise their own flour in five to ten years. This we have a right to infer from the progress of the past two years.

I always look over these wheat communications with deep interest, as I trust I comprehend this important, much and long-neglected branch of farming in the old States. With few deductions (in my humble judgment, to which I have taken the liberty to refer) the communication of "E. C. P." is profitable reading for the farmer. Making my best bow, Mr. Editor, I wish you many more such.

H. POOR.

*Brooklyn, L. I., April 23, 1861.*

FRUIT TREES pruned at this season bleed profusely. We recommend the trial of *hydraulic cement* and "boiled" plaster, mixed dry and rubbed into the pores of the bleeding limbs. We have been applied to for a remedy in a case where shel-

lac dissolved in alcohol would not answer, and throw out this hint, having tested it successfully to all appearance, though whether the bleeding was so strong in the case we tried that shellac would not stop it, we cannot tell. The idea is that it will set in the pores and prevent the passage of the sap. The loss of sap does no injury to the tree, but it scalds and kills the bark, making a bad wound.—*The Homestead.*

*For the New England Farmer.*

### EIGHTH ANNUAL REPORT OF THE SECRETARY.

This handsome volume of more than 500 pages has just come to hand. The first 250 are from the pen of the accomplished Secretary, and need no encomium. They have the usual fullness and completeness of his discussions. Everything but the cattle disease, I like; for this I have no fancy, because I think we know little or nothing about it, and that the honorable commissioners know about the same as the rest of the people. From the beginning I have thought the money expended on this topic was nearly wasted. Next come about 60 pages of reports from the several delegates to the County Societies; there should be twice as many, because this affords the only means we have of judging of the ability of these gentlemen, who should be the representatives of the genuine yeomanry of the State, and who have the very best opportunity of understanding what they do, and what they omit that ought to be done. Then come 50 pages of selections from addresses, some of which are very good. Then come about 100 pages from the farmers themselves; in which I am pleased to find, as heretofore, the old counties of Essex and Norfolk fully represented. Why is there not more, from the valley of the Connecticut, and the region West? Are the cultivators there so busily engaged that they cannot stop to tell what they have done; or are they ashamed to speak of the crops they grow, especially their tobacco? I wish they were, and to use it also, for next to intoxicating liquor, I believe it stupefies and destroys more than any one cause. "O, that men should be such fools as to put enemies in their mouths to steal away their brains!" P.

*April 10, 1861.*

*For the New England Farmer.*

### SULPHUR A PREVENTIVE OF WORMS IN ONIONS.

MR. EDITOR:—*Dear Sir,*—On the 13th of April, 1860, I sowed my onion patch, and herewith give you the result of my experiment. The soil, a dark loam, was all manured alike with compost manure. On one half of the land, I sowed the seed as usual, using a drill barrow; on the other half of the ground, with the seed, I mixed flour of sulphur, one-half pound to one pound of seed, and for the reason that sulphur is so much heavier than onion seed not over a half pint of seed and sulphur should be put into the hopper or seed-box at a time. In this way the seed and sulphur will be sown uniformly together. My onions came up and looked equally well in both cases, until the first week in June, when, after a warm rain, those without sulphur began to

droop and die, and at harvesting I had only about a quarter of a crop, while those with sulphur yielded a large and fine crop, with not a sign of the maggot during the season.

CORNELIUS CALLAGHAN,  
Gardener to John Woodridge, Esq.

*Lynn, April 12, 1861.*

REMARKS.—Sulphur being a mineral, why should it not operate equally beneficial, if spread broadcast over the field, and perhaps slightly raked in before sowing the seed? Or, spread over the ground after the seed is sown, and left on the surface? We learn that our correspondent will experiment by sowing sulphur broadcast, as well as by sowing it with the seed, and hope he will give us the result.

#### COE AND CO.'S SUPERPHOSPHATES.

Dr. Hatch, of Keene, N. H., has addressed an interesting communication to the selling agents of Messrs. Coe & Co., on the relative merits of their superphosphates and the Peruvian guano. Dr. Hatch is a gentleman whose scientific education is of the highest and most precise kind, while he is also a careful and experienced practical agriculturist—qualities not often found in the same person in so great a degree. We ask attention to his letter:

MESSRS. ELLIOT & RIPLEY:—*Gents*,—At your request I annex a statement as regards the relative value of Coe's Superphosphate of Lime and Peruvian Guano.

Being obliged to purchase manure for a large portion of my crops last year, I made inquiries for the best and cheapest. I was satisfied, theoretically, that Superphosphate of Lime was what I needed, but was persuaded to try at the same time Peruvian Guano. I plowed two acres of light sandy loam, and used on one-half three bags of Coe's Superphosphate of Lime, on the other, one and a half bags of the best Peruvian Guano, costing ten cents more than the lime. The land was sowed to Hungarian grass, millet and clover. The result was the same in each instance, viz.: that portion of the land upon which the guano was used produced only about two-thirds as much as the other. In my garden, I found that the peas, (contrary to my prediction,) came up earlier, grew faster and larger, and yielded more than twice the quantity upon the superphosphate than those upon the guano. I also tried the same experiment with early potatoes, with precisely the same result. I also used the lime for corn, oats, carrots, mangolds and turnips, and in every instance to my entire satisfaction. I have no hesitation in saying that I consider it the best and cheapest artificial manure that can be bought.

*Keene, April 6, 1861.* THOS. E. HATCH.

We learn from our numerous correspondents that the Phosphate is not only quicker in its effects than Peruvian Guano, but much more durable, lasting from five to six years; and after all the information we have received, we give it as our opinion that Coe's Superphosphate of Lime is far the best fertilizer the farmer can use.—*Boston Journal.*

*For the New England Farmer.*

#### IS IT PROFITABLE TO KEEP HENS?

MR. EDITOR:—The above question has been freely discussed in your paper in times past, and much has been said on both sides, yet I could not decide it for myself without practical demonstration; accordingly, as I had a stock of 11 hens, I commenced, on the 1st of January, 1860, to keep an exact account of debt and credit for the year ending Jan. 1, 1861.

The result is as follows:

|  |        |
|--|--------|
| Cost of 11 hens, at 33c.....                     | \$3.63 |
| Cost of keep, 14 bush. oats at 46c per bush..... | 6.30   |
| Total amount.....                                | \$9.93 |

Early in the spring 3 of the 11 died, and the amount of eggs produced was 1133; to get the true value of which I credited them at the ruling price at the village store, as fast as a dozen accumulated, (the price varied from 20 cents down to 12 cents per dozen.)

|                                |         |
|--------------------------------|---------|
| The value of the eggs was..... | \$14.50 |
| Stock of 8 hens, at 33c.....   | 2.64    |
| Making a total of.....         | \$17.14 |
| From which deduct.....         | 9.93    |

And I have a good balance of.....\$ 7.21

I do not keep a crower, as I save the cost of keep, and besides, what is a greater advantage, the hens may set several days longer on their eggs without spoiling them for use. I do not raise chickens, I find eggs the most profitable. My stock is the Bolton Grays crossed with the common barn-yard fowl; they seldom offer to set, and can be easily broken up. I do not let them run at large from May to October. I have a yard for them adjoining my barn in which is a hennery made by partitioning off a portion of the bay; it has large windows near the ground, and a southern aspect.

Perhaps the inquiry may be raised if the trouble of feeding and tending should not be charged to them; if so, I reply no, for the pleasure and satisfaction I enjoy from tending them is more than an equivalent for all the trouble. WARFIELD.

*North Londonderry, Vt., Jan., 1861.*

NOBLE HORSE.—Grant Thorburn says: "I once saw a horse, in the neighborhood of New York, drawing a load of coal, twelve hundred weight, in a cart. The lane was very narrow—the driver, some distance behind, was conversing with a neighbor. The horse, on a slow walk, came up to a little child sitting on his hind quarters, in the middle of the road, gathering up dust with his little hands, and making mountains out of mole hills. The horse stopped—he smelled of the child—there was no room to turn off. With his thick lips he gathered the frock between his teeth, lifted the child, laid him gently on the outside of the wheel track, and 'went on his way rejoicing.' And well might he rejoice—he had done a noble deed."

A LARGE WARMING APPARATUS.—The New York authorities, it is said, have allowed a company to lay pipes through all the streets, to convey "hydrogenated fuel," or other heating agents to every house, just as gas and water are now conveyed. So we move onward.

*For the New England Farmer.*

**CAUTION IN PURCHASING SEEDS OR IMPLEMENTS NECESSARY.**

MR. EDITOR:—I perceive that some of Mr. Crandall's Egyptian Corn victims are a little disposed to find fault with the *New England Farmer* for containing such advertisements. Now, without admitting the right of publishers to insert every advertisement offered, I am not disposed to limit them very closely in that class relating to new varieties of seeds, plants, &c., because it is not always possible for them to know whether an article is what the advertisement recommends it to be, and because I think it best to give those who have the disposition and plenty of "tin," an opportunity to try everything, and throw out the chaff, leaving for the rest of us nothing to do, but to take that which proves clean grain. With proper precautions, I think no one need be badly sold, even though surrounded by bogus advertisements, and with your leave, I will give your readers a few words of caution drawn from my own experience and that of friends.

1. Every one who is really able to invest much in anything, not fully proved, is able to furnish himself with information to act understandingly by taking two or more agricultural and horticultural journals, which he should read carefully, and note particularly every article on any new plant, fruit, or fertilizer, in which he thinks of investing, as well as all advertisements, not forgetting the signature, and in this way, a shrewd observer will soon learn to estimate pretty correctly what amount of credence is due to the advertiser for honesty, or to the correspondent for judgment and disinterestedness.

I have found the *New England Farmer*, *Country Gentleman*, *Horticulturist* and *American Agriculturist* all very useful in this respect, as well as others, and while they are all first class periodicals, they do not at all encroach upon each other's territory, each one being about as nearly indispensable while taking all the others; the *Agriculturist* would have saved our "Egyptian Corn" friends from being sold, if they had read and heeded it, this particular humbug having been exposed in the number for last March.

2. Never send money to transient advertisers whom you never heard of before, unless recommended by responsible agricultural editors, or others whom you know to be disinterested, and well informed upon the subject in question.

3. Never order anything, however highly praised by the advertiser, if he cannot point to well-known and respectable parties who have tried and are ready to recommend it. It is rare that anything really valuable is offered at the present day, until it has been submitted to the inspection of some one or more persons competent to decide on its merits, and recognized by the public to be such.

4. Take all possible precaution in sending orders, that you send to dealers who are strictly honest and honorable in their dealings. Better apply the rule to all whose advertisements are not entirely consistent and straightforward.

5. If you are not fairly dealt by, when you send orders, give an opportunity to correct the mistake, if it was such, and if this is refused, withdraw your patronage, and report the offender to

friends who would otherwise be likely to order from him, and to your Farmers' Club, if you have one.

6. To be sure that the mistake is not with you, and also to have the evidence on your side, it is well, when ordering to any great amount, to write beforehand and ascertain particularly what is to be the quality of your purchase, terms, &c., then, when making out your order, make an exact duplicate, and preserve it, as well as all correspondence on both sides. With some nurserymen when ordering trees or plants, it is necessary to state expressly that you want what you order, or nothing, as otherwise they take the liberty of substituting something else when they cannot furnish exactly what is ordered.

As an illustration of how I apply some of the above rules, when the Chinese Potato excitement first began to rage thoroughly, I received copies of three different editions of a small pamphlet, praising it up beyond all reason, and urging those who wished to make sure of seed, to send immediately, "as first come, first served," and the supply was limited. Now the evident anxiety to sell indicated anything but a scant supply, and of course a want of consistency in the advertiser, and the result proved it a great humbug. The advertisements of that firm I seldom read.

Another nurseryman, a few years since, started a new grape, recommending it as very fine, and offering it at a high price; but neglecting to bring forward any evidence other than his own word, I not only distrusted his "grape story," but dissuaded a friend from buying Norway Spruces of him, on the ground that a man who is dishonest in one thing, cannot be trusted in another. Since then the Massachusetts Horticultural Society have pronounced the grape no better than most of our wild grapes.

Now let every one adopt such rules, and nurserymen will become honest from policy, and such men as Crandall will find their "occupation gone."

WM. F. BASSETT.

*Ashfield, April, 1861.*

**FOOD OF COWS AFTER CALVING.**—It is customary with many farmers to feed cows immediately after calving, with warm slops—a pail of bran or meal and warm water, well salted—and a better diet is commenced at once in order to get as much milk as possible. A writer in the *Homestead* objects to this proceeding as contrary to nature, and very likely to induce caked bag and milk fever. He contends that the cow should have rest and quiet, rather than "a dose of physic and warm mash," as is often given, and adds:

"It is an error to suppose that tasking the stomach after the fatigue of parturition can be otherwise than hurtful. A drink of water and a little dry hay is enough for the first day, and she should have nothing better than the best hay for three or four days—until all inflammatory symptoms are passed."

**COLIC IN HORSES.**—The *Farmers' Advocate* prescribes for colic in horses, a blanket wrapped around the body and drenched with cold water. It steams like a boiling pot, and cures in fifteen minutes.

## THE FARMER AND THE WAR.



As an agricultural editor, our mission is one of peace. It leads us among the quiet avocations of men, into green fields, by the water-brooks, or upon hills teeming with feeding kine,—and in the arts of peace we have labored cheerfully and earnestly, feeling that those labors were productive, and that we were precisely in “the line of duty.” But these matters have not engrossed our whole attention. The general politics of the country have been familiar, and its prosperity and glory as dear to us as life itself,—and when it has been defamed by ungrateful and indiscreet men at home, or assailed by its enemies abroad, we have kindled as though our personal honor had been insulted. When our glorious flag, floating over a free and brave people, but unarmed and defenceless, was fired upon by unprovoked, arrogant and rebellious madmen, we were ready for war, as preferable to the then existing state of things.

We believe, (and we possess some *private* evidence of this,) that war has, virtually, been declared against the free States by the leading politicians of the South for more than ten years, and that, during that time, the attacks upon our members of Congress with bludgeons, bowie knives and pistols—the insults heaped upon the New England States, and upon Massachusetts, especially—the hanging, burning and drowning of our citizens while engaged in their legitimate business at the South, and the scourging and *expulsion of women*, who were engaged in teaching their own children, have all been done to gratify a malign hatred, and to precipitate the country into a civil war! As this paper, however, is sent into all classes of our people who hold different political opinions, we have rarely, or never, alluded to the gross outrages committed upon the laws as well as the persons of the free States.

Forbearance, in this matter, has now ceased to be a virtue. The Executive wisely practiced it, until *the people* were ready to rise in their might to repel the assailants, and avenge the insults to our flag.

One spirit, only, now animates our people,—to vindicate the government, and vanquish the traitors. Both objects will be accomplished. Every man is ready to fight, where he can do the most service. No drafting will be necessary. Volunteers press themselves upon the authorities to four times the number that can be received! These are not mere fighting men—but farmers, carpenters, machinists, blacksmiths, engineers, lawyers,

scholars, clergymen, storekeepers, physicians, road and bridge builders, printers,—in short, *Freeholders*, who will show the bloody front of rebellion that the men of the North have *courage*, as well as conscience. They will march wherever the national flag is insulted, suppress revolution, and visit terrible retribution upon the rebels.

Our resources in men and provisions are ample, and would have been so in all the munitions of war, but for the stupendous robberies committed by the arch traitor Floyd, and his chivalric Southern allies. They robbed the Exchequer, the arsenals, the mints, and, aided by one worse than all, because a son of New England, Toucey, then Secretary of the Navy—a name covered with loathing and scorn—sent all our national ships into distant seas. Notwithstanding this, the energy and reproductive power of our people will soon supply deficiencies, and the legions that are panting to punish this wicked design upon the best government the world ever knew, may all be supplied as they are called to the seat of war.

The farmer has already shown that it is neither his duty or desire to absolve himself from any of the burdens or perils introduced by a state of war. The thousands of stalwart and intelligent sons who have gone out to fight at their country’s call, are sufficient evidence of this. He has another duty, however, scarcely less important, *at home*,—and that is to occupy *as much ground* with the ordinary crops *as he can manure and tend well*. It will be a grave error to do more than this. Some have already recommended that large and unusual breadths of land be sowed to wheat, or other grains, or planted with corn or potatoes. Such advice is as inconsistent as it would be to advise the ship-builder to construct a vessel of such proportions that she could never be floated out of the harbor!

Our advice is this:—Use all the manure you can possibly press into service; prepare it from every source; purchase it, if possible, even at a high rate; use it liberally, especially on the corn crop; cultivate with care through the season, never allowing a weed to grow among the crops, and the result will be a harvest more valuable in every way, than one obtained from a large breadth of land badly managed. On rich river bottoms, or in the West, where fair crops may be obtained without manure, the expanding policy may answer, but it will prove disastrous in New England.

All you can produce will certainly be needed, even if the war should be closed in three months. The demand will be quick, at high prices, and at your own doors. There is no need of alarm on the part of the farmer. No evil becomes so general and destructive as to leave no compensations behind. The withdrawal of 50,000 men from the

labor of the field—men who must still be fed—will require more than the ordinary energy of the husbandman to supply their wants—so that now is the time for the farmer to bring into use every economical means, and by the blessing of Heaven upon his labors, secure an abundant harvest, and find an ample profit in disposing of it as it is ready for market.

The adoption of this course will prove to the farmer one of the compensations of a great evil—and this compensation must continue for a considerable period, for a war of but a single year will so derange affairs as to call a large number from the cultivation of the soil after actual hostilities have ceased.

With the farmer, there is no real cause for anxiety, much less for despondency. While he deploras the evil brought upon us by infatuated and wicked men, he can prosecute his labors with the cheering reflection that he is as effectually sustaining the prosperity and honor of the country, and that his labors are as patriotic and honorable as those of the sons who have gone from their hearth-stones to defeat our enemies. He must consider that the measure of a nation's wealth lies in its labor—in its *reproductive power*—power quickly to supply the waste that war has made; and he will find that power in a wonderful degree in our people.

While our brave soldiers can span rivers with new bridges where the enemy have destroyed former ones, set up and repair locomotives, re-build railroad tracks and navigate ships from under the enemies' guns into ports of safety, the *farmer* will not fail to manifest his energy, skill and patriotism in the cultivation of the soil, to sustain the brave men *who stand by the guns*.

The resources of our country are unbounded—the chief one being in the indomitable will of our people, but sustained by a general knowledge in all mechanism, art and handicraft. The genius and aptitude of the people is wonderful. Nothing has before occurred to call them out in relation to the arts of war, so that our enemies stand appalled at this new manifestation of our skill and resources. Until our country was imperilled and her sons called to arms and the life of the camp, we, ourselves, had no proper conception of the burning patriotism which underlies our peaceful pursuits. But we are *freemen*, the true basis of skill, courage and patriotism, and being free and skillful, we can supply the wastes of war to an unlimited extent, whether they occur in the destruction of crops or through the usual channels of the commissariat.

Be up, then, brother farmers, to the occasion! Stand by your *field pieces* earnestly and resolutely the coming summer. Press every available force into service in tending and securing the

crops, and make the earth and the hearts of the people glad with their luxuriance and promise. Let us, then, while others have gone forth to subdue the common enemy, see that the earth yields her increase to sustain her gallant sons.

*For the New England Farmer.*

#### "GRAIN FOR SHEEP."

MESSRS. EDITORS:—Under the above head, your Henniker correspondent, "N. M." inquires, "Will oats hurt sheep to feed to them without being ground?" In your remarks you say, "Fed in proper quantities, we believe them admirably adapted to sheep; but all grain must be fed to sheep judiciously." These remarks are sensible, and to the point, and all, indeed, that need be said upon the subject. But as you ask, "Will some of our farmers give you, or us, the reasons why unground oats will hurt sheep?" I answer, as a farmer, it is my experience that unground oats will not only not hurt sheep if "fed judiciously," but do them much good.

My farm is mostly stocked with sheep. I feed them unground grain through the winter,—oats in December and January, half oats and half corn the rest of the winter, with such roots as I have to spare, and never had a sheep hurt by eating oats or corn. My early lambs have a trough of oats where they can eat what they wish, at all times of the day, and will, at four months old, sometimes take a quart each daily, which causes them to "thrive finely."

Several of my neighbors have large and fine flocks of sheep. They feed on unground grain, oats or corn, separate, or mixed, in such proportions as they choose, and any one who will examine these flocks will be well repaid for their trouble, and need no further proof that unground oats are not injurious to sheep. I doubt the economy of grinding grain for sheep, as they masticate their food very thoroughly, and no seed passes them that will germinate.

A flock, to be profitable, should be so cared for, that they will retain their flesh and vigor; but should they, by neglect, become poor and weak, and while in this condition a large amount of any kind of grain be given them, whether it be unground, or ground, it would hurt them, perhaps kill them, as it would a famished man to eat a hearty meal of wholesome food. But "fed judiciously," beginning with half a gill of unground oats per day, and increasing daily for four weeks, at which time they will take a pint, or more, if you have them to spare, they will be all the better for it.

The only danger of losing sheep fed on oats, according to the above directions, is, that the butcher will make you too tempting an offer to be refused.

J. R. WALKER.

*Springfield, Vt., April, 1861.*

COW BELLS.—It is said that a good cow bell of rolled sheet iron, well made, 10 inches deep, with a mouth 3 by 6 inches, can be distinctly heard at a distance of from three to five miles. It is said that a farmer in England provides all his cows with bells tuned to different notes in the

scale, and the whole running through several octaves. A visitor to this farm is charmed by the music, as well as by the sleek sides of the cattle. Sometimes he hears several notes in unison, then a slight discord, and then a sweet harmony, and all varied by distance and by the rising and falling of the breeze.

*For the New England Farmer.*

**FARMING OPERATIONS MADE PROFITABLE--No. III.**

To \_\_\_\_\_,

DEAR SIR:—In this third communication I shall endeavor to reply to the remaining inquiries of your letter.

4. "I have 30 or 40 acres of land near the buildings which I desire to convert into productive pasture, principally for milch cows. The land is somewhat uneven, but sufficiently level for plowing. It has been impoverished by occasional grain crops, and in the intervals between them by overfeeding with stock. The soil has never been stirred more than four or five inches deep, but the subsoil appears to be pretty good, and tolerably free from stone. How shall I manage to make a good pasture of this tract of land?"

As your land admits of the use of the plow, you can improve it in various ways. In the month of August plow up such a portion of it as you can manage conveniently, turning it about eight inches deep, so as to stir in a portion of the fresh subsoil with the old surface soil. Then sow broadcast 500 lbs. of bone dust per acre, harrow it in, and seed at once to grass alone. By this first-named method the land plowed and seeded anew will not need to be fenced from the remainder not then plowed. Sow only herds grass and redtop in August, but the following spring, as soon as the ground is sufficiently bare of the old snow, and while the surface is filled with little cracks, sow liberally red and white clover seeds. Herds grass, however, is not a very lasting pasture-grass, because when closely fed off the roots soon kill out. Sow but little of it, therefore, and stock more largely with the other grasses. Orchard grass is an excellent pasture grass, bearing any amount of close clipping, and springing up with remarkable quickness and vigor after it has been bitten down. Of late years I have invariably sown this grass when laying land down to permanent pasture. The seed being quite bulky, a bushel and a half is none too much to sow with the other grasses, if you would secure a thick fine sward. It may be sown in August, or at any time of year. Let me remark, by the way, that redtop should not be mixed with the other grass seeds to sow, but should be put on separately, and with a much narrower cast, because the seed is so very light and chaffy that it will not cast off more than about two feet each side of the sower's track, even in the most favorable time for sowing. If it is mixed with other seeds and sown with the usual breadth of cast, you will afterwards see it growing in strips across the field, with spaces between about as wide as the strips, where there is little or no redtop. After plowing in August, you can, if you please, put on a heavier dressing of bone, say 300 lbs., per acre, and sow winter wheat or rye with the grass seeds—the extra dressing of bone in that case compensating the land for a grain crop taken off. If the season is favorable for winter grain, you can get

from twenty to thirty bushels per acre and several dollars' worth of straw, besides decidedly improving the land. Bone dust is a sure and quite lasting fertilizer of pasture land, supplying precisely the elements most largely abstracted from the soil by the feeding of it with stock, and especially with milch cows. I know this to be so by personal observation of the effects of bone on my own land. I was much interested in a recent extract in the *Country Gentleman*, on the use of bones as a fertilizer, and having requested my friend, Mr. Brown, to republish it in another column of the *New England Farmer*, I would call your attention to the article.

Another way to improve your land would be to plow it nine or ten inches deep, late in the fall, and in spring manure liberally with compost, broadcast, and then plant it with corn or potatoes. If you have time after harvest in the fall, plow, harrow and prepare the land all ready for stocking down, and very early in the spring sow on grass seed alone. Or, you can plow in the spring and stock to grass with grain. It would of course be better for the land to omit a grain crop; but if present profits must be considered, then take the crop of grain, and you have still an improved pasture. Or another way would be to manure the land one or two years in the fall, as it is called, planting it with potatoes. Then lay it down to grass in the spring, without grain, sowing 500 lbs. of bone dust per acre and harrowing it in before sowing the grass seeds. Or after planting the land a year, to rot the sod, sow 300 lbs. of guano per acre, with a thick seeding of clover, to be the next year turned under as a green crop, and the land in August or first part of September seeded down to pasture. If the land is quite foul with any species of vegetation that it is difficult to kill by simply the smothering process of plowing, then it would be well to plant and cultivate it in hoed crops one year before laying it to permanent pasture. But as a general thing, nicely executed plowing will pretty much kill out the old vegetation. Thorough plowing should be the rule, and if a baulk perchance is made, the team should be at once backed into it and the defective furrow mended. Nothing at all can be gained by the "cut and cover" style of plowing. All these various modes of improving old pastures imply the investment of some capital "in the improvement of the soil itself;" but such investment is indispensable if you would have good land, and is usually more profitable than the purchase of more land to meet the requirements of the stock you wish to keep. The improvement of impoverished pastures is an important part of farming at this day, and it is to be hoped that you will try various expedients yourself for the renovation of such lands, and let us know hereafter, through the *New England Farmer*, the results of your efforts. You can do no more useful service than this to the farming interest of New England.

5 "Can I make profitable use of Peruvian guano, either as a sole fertilizer of land, or as an assistant to fertility on land otherwise well manured, and if so, to what crop or crops can it best be applied, and in what quantity?"

Guano stimulates land in some cases wonderfully, for one or two years after its application, but it does not seem to add staple to the soil, nor



to be sufficiently permanent in its influence to be relied on as a sole fertilizer. It may, however, be used beneficially for some special purposes. For instance, on a loose, dry, sandy or gravelly soil, loath to take grass well, even though well manured for a previous crop, or on other land which for any reason is shy and uncertain in this regard, a superb catch of grass may generally be obtained by sowing 200 to 300 lbs. of guano per acre, and harrowing it in with the grain sowed at the time of stocking to grass. The crop of grain and of straw may also be considerably increased thereby. I have thought in my own practice that such application of guano paid as well as any other of like cost that could have been made. I have already stated that guano may in some cases be profitably applied to stimulate poor land to throw up a bulky green crop, to be turned back into the soil. Instances might be named where its application for this purpose has been attended with satisfactory results.

6. "I have a lowland meadow of 15 or 20 acres, subject to overflow by freshets setting back from the river. Though the flooding usually occurs in spring, yet it sometimes happens in summer or fall, and therefore grass is the only safe crop to raise. The surface of the meadow is nearly level, but in places there are certain slight depressions, and on these portions the water remains so long after the subsidence of the flood that it stagnates upon and chills and poisons the land. Coarse water grasses are therefore the only product. The soil is a deep stiff loam. It appears to me that the flooding of the meadow, together with the sediment brought on, would be beneficial, provided the surface water could be disposed of quickly, or made to pass off with the falling of the stream. Now if I have succeeded in conveying an intelligent impression of the lay and condition of this tract of lowland, will you please advise me how to proceed to make it good sweet mowing land?"

Meadows of this kind usually have more or less descent towards the stream, or in some direction so that the water can be drained off into the stream, though it may not be perceptible to the eye alone. From your description, I judge that the land is made too wet by *surface* water, remaining to stagnate and pass off only by evaporation. The first step is to take an accurate survey of the meadow with levelling instruments, and ascertain where one or two main open ditches can be cut and have a suitable regularity of fall or draught to carry off the flood waters "with the falling of the stream." The fewer ditches you can have, and yet get rid of the water, the more convenient will be the after tillage of the land. Do not depend at all upon the eye alone, but take your measurements by the aid of levelling instruments, and then you will know accurately the lay of the surface and where to locate ditches so as to be able at once to secure successful drainage. To get the water off to the river, the ditches may perhaps have to pass through a swell or portion of land somewhere higher than the general level of the meadow; but do not let that discourage or foil you in the attempt to drain the land, for you have only to cut the ditches deeper there, and correspondingly wider on top, so as to give the proper slant to the sides to prevent them from caving in. A slant of forty-five degrees will be best. You might have a few models made of lath or light scantling, the models being of the right width for the bottom of the ditch, and the sides of them slanting

or flaring out at an angle of forty-five degrees, and set occasionally into the ditch; they will guide the workman in giving the right shape to their work. The earth taken out in making the ditches would well pay for hauling off to compost with manure for some upland field of a dry, open soil. Perhaps portions of it will come handy for levelling up some depressed places in the meadow.

After completing the ditches, and the land has dried off sufficiently to permit of plowing it, you can any time in the season previous to about the first week in September, plow as much of it as you can at one time manage. I should think it had better be plowed certainly as much as nine or ten inches deep, so as to bury the old sod thoroughly, and kill its roots. Perhaps it would be still better to plow a foot deep. Possibly at some time previous to seeding the land to grass, you can fill some of the worst depressions handily by plowing off the nearest knolls or crowning places, and moving the earth thus loosened into the sunken spots with the ox scraper. That, however, depends upon circumstances of which you can best judge. The sod and subsoil plow will make the best tillage, provided the sod is not too rooty and stubborn to allow of the use of the little skim or leading plow. If the sod is too much for the skim plow to contend with successfully, then a large powerful breaking-up plow of the flat furrow sod kind, drawn by four or six oxen, will be best. Be particular in plowing to get the old swampy vegetation all under, lest otherwise it should grow up again, to the injury of the new seeding. Spread fifteen or twenty loads of compost per acre, made of manure and good upland loam, and harrow it in. Then sow a half bushel of herds grass and a bushel of redtop seeds per acre, and pass a bush or light roller over the land. It will be desirable to seed the meadow as early as the first half of August, or even in July, if it can then be attended to, for that will give the young grass time to get firmly rooted before the winter or spring floods come on, so that it will not be likely to be killed by the overflow.

If you can procure seed of the fowl meadow grass to sow, that would be the very best grass you could raise on this meadow, judging from your description of the land. It yields a very thick and heavy swath, and superb quality of hay, and is very lasting in the land, provided it is not cut too early. The occasional flooding of the land would be highly beneficial to this grass, as it delights in a moist, but not wet soil. As yet the seed can be obtained in market only in limited quantity; but it is to be hoped our seedsmen will be able to secure larger supplies ere long. It is one of the anomalies in farming, that fowl meadow grass is so little cultivated. I am informed that the seed comes to market more or less at Portland, Me., and that there are meadows in the vicinity of Dedham, and in other portions of eastern Massachusetts, where the grass grows in considerable quantities, spontaneously, I often see it in the intervals bordering our streams in Vermont. The seed can usually be procured in small quantities of the Boston seedsmen. It closely resembles redtop in the form of its head, and shape of the seed, but the color of the head is paler than redtop, while the bottom foliage is of a deeper green hue, and yields a much finer quality, and thicker and heavier burden.

Having drained the meadow perfectly, and stocked it down with the cultivated grasses, you can probably keep it in good grass by occasional top-dressings of compost. Or, if after a time the wild grasses come in too much, you have only to plow in August, manure, and re-seed as before. Thus you will doubtless make the meadow very valuable grass land.

7. "I have, in another place, a few acres of what is called bog-meadow, which I wish to improve for mowing land, it being desirable to make all the hay I can for winter use. This piece of meadow was imperfectly drained years ago, but the muck being in some places quite deep and the cultivation difficult, the productions have now become mostly the coarse water-grasses. I have already drained the meadow thoroughly, cutting off the springs that flowed in from the higher land. I now wish to introduce upon it a better quality of grass. How shall I manage to convert this land into good mowing by the quickest process?"

The imperfect drainage of the meadow, heretofore, made it difficult of cultivation, and led to the ultimate supremacy of the water grasses. The first important operation in order to tame the land, is to drain it completely, which you say you have already done. The next thing is to plow it, which can generally best be done in August, or near that time. Turn the sod over eight to ten inches deep, so as to effectually smother the wild grass, and have a plenty of loose soil on top, to convert into a mellow seed-bed. For this purpose you will need a large plow, rigged expressly for such work. You can do nothing at all effective and satisfactory towards the subjugation of your meadow with a common green sward plow. The bog-meadow plow is rigged with a wide steel-edged share, having a sharp cutting edge, and kept so during use, by frequent applications of a file, so as to cut the wild grass roots completely to the extent of the entire width of the furrow-slice, and thus permit it to turn over surely. You cannot turn the boggy sward unless its roots are severed on the under side of the furrow-slice; if a portion of them are left uncut, they will pull the slice back into its original place again in spite of you. The best modern plows, for such land, have a circular cutter, of steel, attached by its axle to a shank or stem of wrought iron, which is clasped to the plow-beam in the same place and manner as a common cutter; and the circular plate of steel, revolving like the wheel at the end of the beam, makes a clean, effective incision, cutting the slice surely from the main land, and rendering it impossible for the sod to peel and roll up in large masses, as it is wont to do before a common cutter, because the revolutions of the circular cutter naturally hold the turf down in its place while being cut. The bog plow has a large side wheel to gauge the depth of furrow, and having a wide rim to prevent it from rutting into the spongy sod. Then, too, the plow has a draft rod of iron, passing through a clevis on the end of the beam, of such construction as to admit of very wide variations in the landing of the plow, so that the point of draught, where the chain or evener is hitched to the plow, may be swung to the left, or landward side of the beam, as much as twelve inches, or any distance less than that which the particular case may demand. Thus the entire team may be allowed to walk upon the sod or unbroken land—the off oxen or horses travelling in about the place the near ones would, if the

team were attached to the plow by the common hitch. This line of draught may be so nicely adjusted, that while the off oxen travel on the unbroken sod, the plow will nevertheless run perfectly true and natural in its work. It is an arrangement quite essential in plowing all such deep, mucky meadows as yours, where the off oxen would mire to their bellies if compelled to travel in the soft furrow. I have seen bog-meadows superbly plowed in this way, the plow turning furrows two feet wide, and laying them in side by side so truly, as to completely bury the swamp grass, and present a clean surface for cultivation. In bog-meadow plowing, a very wide furrow-slice will turn more surely and perfectly than a narrower one, provided you have a wide-cutting share, because the weight of the wide slice itself helps materially to carry the sod over after the plow has cut it, and raised it from its bed.

Having plowed the land, you can perhaps plant and cultivate it a year or two, or you can stock it to grass at once. I notice that you say you wish "to convert it to good mowing, by the quickest process." Perhaps you can hardly get on to the meadow with loads of manure immediately after plowing—though a few years hence, if it is kept well drained meanwhile, it will become sufficiently dry and settled down together, to allow of that. If you can cart over the land as soon as it is plowed, then spread about thirty loads of compost per acre, made of one-third part manure, and two-thirds good upland loam, harrow it in, and seed to grass—sowing a half bushel of herds grass and a bushel of reedtop per acre, or, what is better, if you can get it, one and a half bushel of fowl meadow seed per acre. But if you cannot get manure on to the land in August, or have none to spare for it, sow say 500 pounds per acre of guano or superphosphate of lime, harrow it in, and sow the grass seeds, and that dressing will stimulate the grass to take root well, make a vigorous early growth, and choke down wild stuff. Two years afterwards, you could top-dress with a compost of loam and manure. Or you can plow and prepare the land in August or after, and as soon as the ground is frozen, cart on and spread the compost manure, and sow the grass seeds on the manure. It is quite customary, where bog-meadows are too soft and loose in texture to admit of much tillage, or to take to tame grasses well, to cover them with a coating of an inch or more in thickness of loam or fine gravelly subsoil, carting it on to the meadow when the land is sufficiently frozen to bear up the team. On top of that a dressing of compost manure is spread, and grass seeds are sown on the manure. This coating sweetens and gives body and consistency to the surface soil, and for several years promotes a large growth of the tame grasses. But bog-meadows differ considerably, partly from natural texture and partly from the condition arising from superficial or very complete and thorough drainage. I could point you to several bog-meadows that have been reclaimed with complete success without the expense of a coating of loam or gravel. I have now in mind a meadow, embracing about sixty acres in one body, that has all been reclaimed to excellent mowing land without such coating, but with the application in December of thirty loads per acre of compost made of manure and upland loam. Not having seen your

meadow, I cannot precisely say which particular method you should adopt in stocking it to grass; but your own judgment will guide you as to that. I should presume that inasmuch as your land was partially drained years ago, it cannot now be very soft or difficult of tillage. If, a few years after you have laid it down, the wild grasses begin to predominate, the land may need to be plowed and seeded anew. But if the tame grasses hold possession mostly, then an occasional top-dressing of compost will enable the land to give you a good burden and quality of hay.

Thus, my friend, I have at length answered your questions as well as I could from such statements as you have given me, and without a personal knowledge of your land. If there are any points that I have not made plain, or if in any particular I have failed to understand the condition of any field or thing you have brought to my notice, another letter from you relative to such matters shall receive attention.

F. HOLBROOK.

Brattleboro', March 26, 1861.

*For the New England Farmer.*

#### PLEA FOR THE BIRDS.

The spring, the beautiful spring, has come again! and with it our cheerful little friends, the birds. We hope, that during the present season, no person, young or old, will show his want of humanity and good sense, by killing any of these innocent creatures; for they not only cheer and refresh the heart with their sweet music, but do an immense amount of positive good, by destroying, annually a vast number of insects, which are injurious to vegetation. Will not the farmer have a care for his pecuniary, if not for his moral interests, by preventing his sons, and others, from prowling over his lands for the purpose of shooting birds? When will men, generally, become intelligent lovers of nature, and learn to appreciate all the blessings of Divine Providence?

S. L. WHITE.

South Groton, March 28, 1861.

**CORRECTIONS.**—In your notice of the meeting of the Legislative Agricultural Society, on Monday evening, April 1, I am made to say that "In New England, the number of cows is 180,000." This is a mistake. Massachusetts is entitled to that number, while in New England there are over 700,000.

R. P. WILSON.

In your monthly journal for April, just received, I am made to say, page 168, the pasture was *not* as good; the word *not* I did not use. I said the pastures on the farm, on which I was born, and labored for twenty years, were *as good* as any in the eastern section of the State. I am the more anxious to have this correction made, as your paper deservedly has a permanency of character, not often met in the multiplicity of publications of these days.

I admire the analysis of the New York Transactions for 1859. I wish our own Board of Agriculture would annually put forth a volume of equal value; I have seen none at all for the last year.

J. W. PROCTOR.

April 5, 1861.

*For the New England Farmer.*

#### HORSE POWERS.

Leominster, April 2, 1861.

MR. GAY,—*Dear Sir*:—I saw the description of a one-horse power for thrashing, sawing wood, &c., in the *N. E. Farmer*, recently by you. Will you do me the kindness to tell me where I can procure such an one, and the cost of same? Also what kind of a thrasher you use, and whether your machine cleans the grain at the same time? Again, in regard to sawing wood, would not the extra fixings necessary to attach the cutting off saw to the horse-power, cost as much as a circular saw? My thrashing was done last fall with a two-horse power, and I am confident that it cost more than to have had it done with flails.

I am very desirous of adopting some plan whereby I can save some of those hard knocks of the flail and beetle, which you seem to have obviated by your machine. I was very much pleased with your method of doing these hard jobs, as described in the *Farmer*, therefore I thought I might "go and do likewise."

If you will answer the above questions you will confer a great favor on a brother farmer.

EMORY BURRAGE.

*B. W. Gay, Esq., New London, N. H.*

*New London, April 8, 1861.*

MR. BURRAGE,—*Dear Sir*:—Your letter was duly received. If my article on a one-horse thrashing machine has been of benefit to any one, I am well paid for writing it, for this reason, that I think farmers might and should be a mutual assistance to each other.

Answering your questions: 1. There is a shop in the town of Sunapee, about ten miles from here, where both one and two-horse thrashing machines are manufactured extensively, for sale or to order.

2. My machine cost, when new, one hundred and twenty-five dollars, but I think they can be bought for a great deal less now.

3. The cylinder of my thrasher is two feet long with teeth projecting three inches, instead of two, as in most of them.

4. This machine does not clean the grain, as there is not power enough in one horse to drive a thrasher and winnower at the same time, without making slower work than a two-horse machine. I think it cheaper to thrash, and then winnow when most convenient.

5. I think the "extra fixings" for the saw will not cost much more than one-half as much as a circular saw. I made all the fixings, except the platform on which to lay the logs, and hung the saw (which is less than a day's work,) for one of my townsmen last week, in three days. A few feet of plank and a few bolts are all that are necessary to make it.

If I can be of any further service to you I shall be happy to oblige you. In my description of this machine in the *Farmer* the printer makes me say "three of these" whereas, it should read "three feet of this end of the sweep should be eight inches wide."

I return your letter, and, if you please, would like to have you send both that and the reply to the *Farmer* for publication, that others may, perhaps, be benefited.

B. W. GAY.

*Emory Burrage, Esq., Leominster, Mass.*

*For the New England Farmer.*

### BERKSHIRE CHEESE.

I read with much interest the remarks made by Mr. Tower, of Berkshire, at one of your agricultural meetings, as published in the weekly *Farm-er* of March 2d. I have often heard the cheese of this county and of Worcester highly spoken of, and should like to know how it is made. Can you inform us through the *New England Farmer*, and oblige many readers of your excellent paper in northern Vermont, where the dairy business is becoming a leading interest.

*Derby, Vt., March, 1861.* B. F. FLETCHER.

REMARKS.—The farmers of Worcester and Berkshire counties very justly pride themselves upon the character and fame of their cheese. In the report of the Worcester Committee on Cheese, for 1859, it is expressly acknowledged that this reputation is public property of great value, which they say ought to be cared for, and increased by public and private effort.

In 1854, the State Society offered the Berkshire County Agricultural Society three premiums of seventy-five, fifty and twenty-five dollars, for the three best dairies that should exhibit their productions, and answer the interrogations accompanying the proposition.

A committee, headed by Mr. Tower, were appointed by the Berkshire Society to award these large premiums, which were finally paid to Mr. J. D. Northrop, of Lanesboro', Mrs. G. W. Lincoln, of Cheshire, and Mr. Henry Dresser, of Stockbridge, all of whom made written statements, which were published.

So far as any manufacturing operation which requires great skill, much practice, and nice attention to numerous details, can be communicated by written description, we believe these statements give information as to the process of cheese-making in the best dairies of Berkshire county.

In reply, therefore, to friend Fletcher's request, we copy the statement of Mrs. S. W. Lincoln, of which Mr. Tower says, in his report on awarding the premiums, "we think her recipe for making cheese as good a one as we have ever met with, and worthy of commendation."

*Manner of making Cheese.*—"The milk at night is set in tubs; and if the weather is warm, coolers are set into the milk, filled with cold water or ice. In the morning the cream is skimmed off, put into milk and warmed, and then mixed with the night's and morning's milk, and warmed by pouring in hot water, to a temperature of eighty-six degrees. Rennet is then added, sufficient to produce a thorough coagulation; then, in about forty minutes, the curd is cut into fine square pieces, and remains until the green whey begins to rise; then it is broken up with the hand. This operation is performed with great care, letting

the curd pass gently between the fingers without squeezing it in the hands, as that would decrease the quantity of cheese. After settling, a quantity of whey is put into a kettle and warmed, and put into the curd, making it ninety-five degrees warm. The curd is again broken, the whey heated and put into the curd, so that the heat will be raised to one hundred and six degrees. It then remains, being stirred occasionally, until the curd becomes elastic, and, as old cheese-makers say, "squeaks between the teeth." Then the whey is again drawn off, the curd cooled with cold water, and then salted with a tea-cup full of salt to sixteen pounds of cheese. It is then pressed twenty-four hours, being turned over in the time, and then removed to a cool dairy-room, greased, colored according to fancy, and turned every day until cured."

*For the New England Farmer.*

### STRAW HIVES.

The telegraphic notices that have kept the public in a state of confusion for the last few months, are not more conflicting than are the statements and opinions of professed bee-keepers touching the management of bees, and the best hives to be used. I know of nothing connected with rural economy upon which so much self-conceit and ignorance has been expended. Simple as are the habits of the honey-bee, volume after volume has been written upon it, while the various periodicals and newspapers have contributed their share of attention to the supposed mysteries of bee-keeping. Intimately connected with many of these books, and following closely in their wake, comes the vender of patent rights and hives. In my opinion, as a class, (and I have seen something of them,) a more unreliable set of hawkers never preyed upon the public. Complain of the bee-moth and cold winters as much as you please; where one swarm dies from either of the above named causes, your patent bee-trays kill thousands. I have still fresh in my memory a remark made to me by a very sensible old farmer and bee-keeper, who, when asked to look at a patent hive, did not object to examining it, but said that if he had given every man that had come to him with a patent hive, ten dollars, and then kicked him and his hive out of doors, he should have been better off. I certainly am not so much prejudiced that I cannot see any good in a hive, merely because it is patented. On the contrary, I think well of the Langstroth hive, consisting as it does simply of a box and suspended frames. I cannot see any thing about it that interferes with the natural habits of the bee. It enables the intelligent apiarian at all times to know the condition of his stock, to regulate his swarms, and in fact, reduces bee-keeping to a very simple pursuit. There are several modifications of this hive patented by various individuals, but all that is good about them, is taken from Mr. Langstroth, and by no means an improvement on the original. Among the most conspicuous of these, and perhaps the worst of them all, is one by Mr. Kidder, who seems to have a very awkward way of

claiming other people's ideas and property, and if the following couplet was not written for him, it is not the less appropriate :

"The part you stole I like the best—  
Go on, good Sir, and steal the rest."

The two best works on bees are undoubtedly by Mr. Langstroth and Mr. Quinby, but neither of these are just what is wanted by the farmer and the mechanic. They require a plain, simple, practical treatise, with all theories and speculations left out. Mr. Quinby or Mr. Langstroth, might write such a book, and yet I fear, when Mr. Langstroth becomes fully aware of the thieving propensities of Italian bees, he might stop to lecture them on their bad habits; while Mr. Quinby would guess too much to suit people who want to know plain and simple facts.

The number of patent hives is very great, amounting to some hundreds. I had supposed that every possible idea had been used up by the patentees, but it seems that I am mistaken. Judging from an article in your paper of the 13th, it would appear that a new and fruitful field is to be opened for patent hives, and Mr. Quinby, who has hitherto had a holy horror of patent hives, now summons to his side the innumerable host of inventors. He assures us, that he has, at the present time, a straw hive, adapted to improved bee-culture—and if he cannot get a better one, he will shortly give us a description of it. Before the country is deluged with these new patent hives, I should like to look into them, and see in what the advantage, if any, consists. Mr. Quinby says "that they are warmer in winter, and cooler in summer." I will leave this assertion for some future occasion, still satisfied in my own mind that it is like the Irishman's grog, that kept him warm in winter, and cool in summer, and was good at all times. Again, it is said "that the straw hives absorb moisture as generated by the bees, and save the bees the warmth they have generated." If this is true, its author has added a new chapter to the philosophy of heat and moisture. I had supposed that where a body was sufficiently porous to allow moisture to pass freely through it, that there was a good deal of danger, that any amount of heat inside of such an enclosure would be likely to go the same way. I have read a great many wonderful things about bees, and am disposed to consider them a marvellously interesting little people, and if they have led to the discovery of so important a matter as the separation of calorific from steam by means of straw, they have an additional claim upon our attention. Place a swarm of bees in a straw hive, and they will do very different from any bees I have ever seen, if they do not line the inside with propolis, a substance impervious to air and moisture. If this be true, (and I hardly think Mr. Quinby will deny it,) the supposed advantage of the straw hive must be sought for in another direction. I beg to suggest, that among the many disadvantages, some advantages are to be found in the straw hive; first, as a general thing, no boxes are used, and the bees are not ever robbed of their stores; second, the conical, or dome-like shape of the hive, lined as it is with propolis, being cooler than the air within, the moisture condenses, and runs down the side of the hive, instead of collecting as it would on a horizontal surface, and drop-

ping down among the bees and comb. The advantage of the straw hive is so connected with its shape, that when used in a square form, it will be found of little or no value. Again, "bees in straw hives, swarm ten days earlier." This statement is not confirmed by many who have the straw hive side by side with wooden hives, where no boxes are used to obtain surplus honey. Mr. Quinby says that the best material for a hive is *straw*, and that he has clearly shown it. This is not so clear to me. I am by no means sure that there is any real advantage in the straw hive. Certainly not, if the form is to be changed. It is with some reluctance that I differ with Mr. Quinby. My first ideas of bee-keeping were derived from him, and I might still have regarded him as undoubted authority, had not accident thrown in my way the Langstroth hive, by which I learned more in one season than I should have found out in a life-time by using the twelve by fourteen box hive. As it is, I trust Mr. Quinby will not blame me, if I am not tickled with his straws.

Winchester, May 4.

E. A. BRACKETT.

*For the New England Farmer.*

#### REMEDY FOR TAPE WORM.

MR. EDITOR:—In one of the *Farmers* not long since, there was mention made of the tape worm, which brought to mind a statement made by one of my neighbors, a Mr. B., who is considered as good for truth as any other man. The statement was, that when he was a boy, his health was very poor, people thought him to be in a consumption, that his food seemed to do him but very little good, and the smell of victuals often caused him to vomit. He told his mother one day that he was sure that it was worms that caused his illness, upon which his mother went and got a handful of dried wormwood, and burned it, took the ashes and mixed them with molasses, and told him to eat as much as he had a mind to. He commenced and eat of it freely that day, and part of the next day, when all at once he felt something give way in his stomach, which caused him to retire, when to his surprise he discharged a tape worm which measured between two and three yards in length, besides several other long, round worms. That the molasses and ashes of wormwood did not agree with those long fellows, was evident from the fact that the monster tape had become spotted about one-third of his entire length.

HIRAM BALDWIN.

Williamsville, Newfane, Vt., 1861.

CRANBERRY PLANTS.—MR. F. E. BRUMMIT, of Walpole, has forwarded a letter to us, to send to "N. P., North Providence, R. I.," who inquired through the *Farmer*, May 11, where he could obtain cranberry plants. We know not who "N. P." is. If correspondents would put their names to articles they send—especially when they make inquiries—they would succeed better in their efforts, and it would save us some trouble. We have several letters now on hand, which we are requested to send to persons whose address we do not know.



#### RURAL ARCHITECTURE.

A DISTRICT SCHOOL-HOUSE, BY GEO. E. HARNEY, LYNN, MASS.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

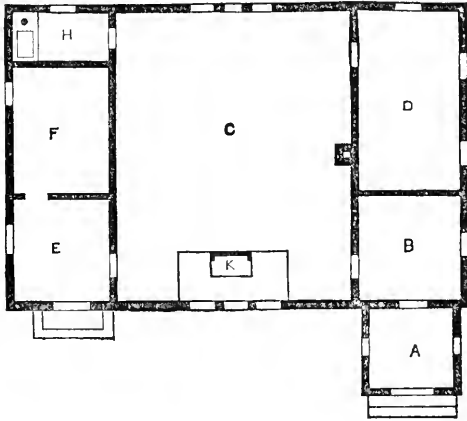
Any one at all familiar with New England villages, must have noticed what a cheerless, unsightly looking building the District School-House usually is, standing, as it often does, at the intersection of two or three country roads—a mile perhaps from any habitation, so that it be in the exact topographical centre of the District, prominent, bare, and “all out of doors”—with its four yellow ochre sides and its leaky hipped roof; its battered door and its broken windows; without a tree to shelter it; without a shrub or a flower to beautify its grounds, or a vine to hide the nakedness of its walls. In fact, it has become a proverb among us, that the school-house is always “the worst looking building in the whole neighborhood.”

While our dwellings, our houses of worship, our public town-buildings even, have, in a measure, yielded to the spirit of improvement, the District School-House—the most important of them all—is still, in most instances, suffered to remain the same ugly, uncomfortable, ill-contrived structure that it was years ago, when our fathers were accustomed to try the effect of their jack-knives upon the pine wood of the benches and seats. And yet, by the exercise of a little taste, the same building, with no more expense, may be rendered an ornament rather than a blot upon the landscape.

It is, moreover, highly important that a child's first impressions of the school be of a pleasing nature, for upon that will depend, in a great degree, the success of all his after schooling. Hence the building itself should be made attractive, of correct architectural design and proportions—sufficiently ornamented to indicate its character and uses—well planned, and having all the modern appliances for the comfort and convenience of the scholars—the grounds neatly laid out, with gravelled walks, hedges and shrubs, trees and flowers, grass plots and play grounds—and the whole situated in some retired spot away from the dust of the highway.

In the accompanying design we have attempted an improvement like the above in the appearance and accommodations of such buildings. The perspective view shows the style and general character of its exterior; separate entrances for boys and girls; a large window in front lighting the school room; and a ventilator on the ridge of the roof. The view also indicates the position and effect of the shrubbery and trees and paths; the vines trailing over its sides, and the vase in front filled with myrtle. The plan shows the position and relative size of the rooms. A is an open vestibule or porch, seven feet square, shielding the entrance to the girls' apartment. The interior finish of this porch is carried up into the roof,

where the timbers are left to show from beneath, being planed and chamfered off, and painted or stained like the rest. During the winter it will be well to hang a couple of doors in the opening, making thus a close vestibule of it, and keeping out the wind and snow. B is the girls' entry, nine feet by ten, furnished with a couple of rows of iron hooks for clothing, a couple of shelves for baskets, &c., and a fixed stand for umbrellas, with a tin pan in the bottom to receive the water.



C is the school room, a pleasant and airy apartment twenty feet long, twenty-five feet wide, and ten feet high at the sides, and fourteen in the centre of the room, well lighted by two triple windows with double hung sashes, and with means for thorough ventilation, and the preservation of an equal temperature at all times.

It has seats and desks for about forty pupils, besides recitation benches, and a raised platform and desk for the teacher.

A great improvement has been made in School furniture within a few years—the era of pine benches and slab seats has long since gone by, and in their place we have easy, comfortable chairs, and desks and shelves for books and slates, and conveniences for writing and drawing attached. They are made of hard wood, principally birch or cherry varnished—with cast iron supports of graceful patterns, firmly secured to the floor of the school-room—and embrace a variety of sizes for scholars of all ages, from four to twenty.

The following scale from "The Guide," a circular published by S. Wales, Jr., School Furniture manufacturer, Boston, shows the height of seat and desk required for scholars of different ages :

| Age.          | Manufacturer's Number. | Height of Desk Next Scholar. | Height of Chairs. |
|---------------|------------------------|------------------------------|-------------------|
| 4 to 5 years. | No. 1                  | 20 inches.                   | 10 inches.        |
| 5 to 6 "      | " 2                    | 21 "                         | 11 "              |
| 6 to 8 "      | " 3                    | 22 "                         | 12 "              |
| 8 to 10 "     | " 4                    | 23 "                         | 13 "              |
| 10 "          | " 5                    | 24 "                         | 14 "              |
| 10 to 12 "    | " 6                    | 25½ "                        | 15 "              |
| 12 to 14 "    | " 7                    | 27 "                         | 16 "              |
| 14 to 20 "    | " 8                    | 28½ "                        | 17 "              |

The above are made in a variety of styles, and are furnished single or in pairs, the latter—a double desk and two chairs—being the most popular, and costing from five dollars to six and a half dollars a set. For primary schools, Mr. Wales manufactures three sizes of small arm-chairs without desks, but with small cast iron cases at the sides for books; each chair, based on an iron pedestal securely fastened to the floor of the room, thus becoming a permanent article of furniture, and completely avoiding the noise and confusion which accompany movable chairs.

K, on the plan, indicates the position of the teacher's desk. On the right of the school-room is a room, D, used for class recitations. It measures ten feet by fifteen and a half, and is well lighted and ventilated. A row of settees surrounds three sides, and an assistant's desk and table occupy the fourth.

E is the boys' entry on the left of the school-room, fitted like the girls' with hooks and shelves for clothing, umbrella-stand, etc. Beyond it is the wood-room, F, nine by twelve feet. H, small wash-room, with pump and sink, with closet under, and conveniences for washing, brushing, etc.

The attic floor—quite small, the central portion being mostly included in the school-room—is approached by a ladder from the wood room, and may be used as a store room for spare furniture.

*Construction.*—This building is to be built of wood, and covered in the vertical manner, the joints battened with heavy battens. The trimmings, door hoods, ventilator, etc., should be executed in a substantial manner, of heavy stock, and the whole painted in three tints of a color between a drab and a brown, the main walls being the lightest, the trimmings the second tint, and the slats of the ventilator, recesses of the openings and the base and steps the darkest tint. The interior finish of all the rooms except the wood and wash rooms is to be a wainscoting, three feet high all around, with a base and a cap moulding. Above this the walls are to be lathed and plastered, and in the school and recitation rooms, black plastered, three feet above the wainscoting, with a moulding between it and the white or tinted wall above.

All the wood work is to be oiled and varnished, showing its natural color and grain, the windows glazed with the best quality German glass, and the sashes drawn bronze green. All the windows should have inside blinds, oiled and varnished. The chimney breast should be wider than it is shown on the plan, to admit of a ventilating box at its side.

Built in the above simple manner this structure would cost from nine to twelve hundred dollars, varying according to the quality of the finish and the location.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 12.

THRUSHES.

Wilson's Thrush or Veery—Mocking Bird—Brown Thrush—Cat Bird.

The VEERY, or WILSON'S THRUSH, (*Turdus Wilsonii*, Bonap.) is a common inhabitant of the moist woodlands and dense solitary swamps of many parts of New England, and is said to inhabit the whole United States, and northward to the 57th degree of latitude; and in all this extensive region is rarely met with in other than quite retired situations. Here, "especially after sunset," to quote the well-chosen words of an agreeable writer in the *Atlantic Monthly*, (December, 1858,) "he pours forth his brilliant and melancholy strains with a peculiar cadence, and fills the whole forest with sound. It seems as if the echoes were delighted with his notes, and took pleasure in passing them round with multiplied reverberations. I am confident this bird refrains from singing when others are the most vocal, from the pleasure he feels in listening either to his own notes or to the melodious responses which others of his own kindred repeat in different parts of the wood. Hence he chooses the dusk of evening for his vocal hour, when the little chirping birds are mostly silent that their voices may not interrupt his chant. At this hour during a period of nine or ten weeks, he charms the evening with his strains, and often prolongs them in still weather till after dusk, and whispers them sweetly into the ear of night." Likewise at the early hour of dawn he welcomes the rising sun with his enchanting song, and through the gloomy days when the murky clouds distil their refreshing moisture upon the thirsty earth, and most songsters are mute, his melody enlivens the dripping woods; in the brightness and fervor of midday he is generally quite silent. The song of the Veery is peculiarly attractive and beautiful, composed of many trilling, liquid notes, hard to describe, yet warbled out in such a succession as to perfect harmony and captivate the ear.

The Thrush is quite shy, especially while engaged in song, and is seldom seen outside of the woods. It builds its nest on or very near the ground, of withered leaves, fibrous roots and grass, and lays four or five eggs, precisely like those of the Cat-Bird in shape and color. It appears regularly from the South in considerable numbers early in May, and retires in September.

This species is ten inches in length and twelve in extent. Color above, tawny brown; beneath, white, tinged slightly with ash under the wings; breast, cream color, marked with pointed spots of dark brown.

In the genus *Orpheus* of Swainson, are placed several of the American Thrushes, differing from the tree Thrushes in their more elongated form, chiefly produced by the comparatively greater length of the tail, and in the shortness of the wings. The MOCKING BIRD (*Orpheus polyglottus*, Swain.) is probably the most remarkable in the extent and variety of his vocal powers, of all musical birds; besides having a song of its own rarely equalled, it possesses the power of imitating the notes of all other birds with surprising accuracy, and even the peculiar cries of quadrupeds, and the creaking of inanimate objects. It

is a bird peculiar to the continent of America and its adjacent islands, and inhabits a large breadth of country, being found on both sides of the equator, from Brazil in the southern hemisphere northward to the States of New England in the northern. In the southern parts of the United States they are resident, as Wilson observes, and appear half domesticated and familiar, while in the Northern States they are migratory and quite shy. To the north of the Delaware river they are said to be much less numerous than to the southward of that river; many pairs, however, are found to breed in the State of New York, a few in Rhode Island and Connecticut, and they more rarely stray into the southern part of Massachusetts. Two pairs of these birds took up their residence in Springfield in the summer of 1860, and have been previously known to breed within the limits of this city. The Mocking Bird generally builds in a low tree or bush, often, it is said, in the immediate vicinity of man. A nest that I discovered in this vicinity, last June, was placed in a thick pine bush, (*Pinus rigida*), about four feet from the ground, and nearly a mile from any human residence. It was composed outwardly of a considerable mass of dead, coarse pine twigs, neatly lined with fine, dark brown fibrous roots, the whole forming a considerable mass of upwards a foot in diameter. The three eggs it contained were of a pale, ashy blue color, marked with specks and blotches of brown. The nest and eggs, with both the old birds, were secured as a rare prize, and are now carefully preserved in a cabinet.

The Mocking Bird is occasionally seen in the Northern States in cages, and in a state of confinement astonishes and amuses all listeners with its admirable and precise imitations of all the feathered songsters within hearing. "In his domesticated state," says Wilson, in his original and inimitable description of this bird, "when he commences his career of song, it is impossible to stand by uninterested. He whistles for the dog—Cæsar starts up, wags his tail, and runs to meet his master. He squeaks out like a hurt chicken—and the hen hurries about with hanging wings and bristled feathers, clucking to protect her injured brood. The barking of the dog, the mewling of the cat, the creaking of a passing wheelbarrow, follow, with great truth and rapidity. He repeats the tune taught him by his master, though of considerable length, fully and faithfully. He runs over the quiverings of the Canary, and the clear whistlings of the Virginia Nightingale, or Red-Bird, with such superior execution and effect that the mortified songsters feel their own inferiority, and become altogether silent, while he seems to triumph in their defeat by redoubling his exertions.

"This excessive fondness for variety, however, in the opinion of some, injures his song. His elevated imitations of the Brown Thrush are frequently interrupted by the crowing of Cocks; and the warblings of the Blue Bird, which he exquisitely manages, are mingled with the screamings of Swallows, or the cackling of Hens; and amidst the simple melody of the Robin, we are suddenly surprised by the shrill reiterations of the Whip-poor-will; while the notes of the Kill-deer, Blue Jay, Martin, Baltimore, and twenty others, succeed with such imposing reality, that



we look around for the originals, and discover, with astonishment, that the sole performer in this singular concert is the admirable bird now before us. During this exhibition of his powers, he spreads his wings, expands his tail, and throws himself around the cage in all the ecstasy of enthusiasm, seeming not only to sing, but to dance, keeping time to the measure of his own music. Both in his native and domesticated state, during the solemn stillness of night, as soon as the moon rises in silent majesty, he begins his delightful solo, and serenades us the livelong night with a full display of his vocal powers, making the whole neighborhood ring with his inimitable medley." The native notes of the Mocking Bird considerably resemble those of the Brown Thrush, but are readily distinguished by their greater rapidity, sweetness, energy and variety.

The Mocking Bird is nine and a half inches in length, and thirteen in extent. Above, plain brownish ash, the wings and tail black, the primary coverts of the former tipped with white, also a white space on the primaries; two exterior feathers of the tail white, and the rest, except the two middle ones, broadly tipped with pure white; beneath, brownish white; iris, pale yellow.

The BROWN THRUSH or BROWN THRASHER, (*Orpheus rufus*, Swain,) also known as the *Red Mavis*, *Long tailed Thrush*, &c., is a common and well-known species inhabiting from Mexico to Canada. He arrives in New England from the South about the end of April, and, to all lovers of rural song and scenery, is a welcome visitant to our hedges and skirts of woods, in which he takes up his residence, and is well entitled to protection at the hands of the farmer. During the months of May and June he is continually piping his well known and justly-admired song, from the tree-tops of the thicket or hedge, occasionally, when undisturbed, approaching the farm-house, and from the top of a tall tree in the garden or orchard, often within a stone's throw of the farmer's door, continuing his musical lay for hours of a dewy morning or towards nightfall. Yet he is sometimes guilty of scratching up a few grains of newly-planted corn, or of purloining a few currants or cherries from the garden, and on this account is often unmercifully persecuted by boys who have acquired a thirst for "sporting" and are eager to practice their skill at destruction even on the most trivial excuse. The Brown Thrush destroys great quantities of those grubs that are so destructive to the farmers' crops, particularly in May and the first two summer months, at which time they are also most fed upon, and amply repaying for the minute losses he may occasion, is highly worthy of esteem and protection.

The CAT BIRD, (*Orpheus felivox*, Swain,) is one of our most abundant species, several pairs inhabiting every thicket, often frequenting gardens and swamps, and is at all times exceedingly unobtrusive and familiar. Though possessing no traits absolutely criminal, he is yet in bad repute with many, and great numbers are often destroyed for no better reason than the pilfering of a few berries from the garden, or of scratching up a very few kernels of corn. His name is, unfortunately, not prepossessing in his favor, obviously given from one of his peculiar and oft-repeated notes having some resemblance to the mewling of a

stray kitten. The Cat-bird, however, possesses many decidedly original, interesting and familiar traits of character, among which is a prying inquisitiveness, often curiously exhibited; and seems to possess, as thought by some, a faculty of imitating, to some extent, the notes of other birds. "On attentively listening for some time to him, one can perceive considerable variety in his performance, in which he seems to introduce all the odd sounds and quaint passages he has been able to collect," and may well rank among those agreeable general performers that fill our thickets, fields and orchards with such pleasing melody.

J. A. A.

Springfield, Mass., Feb. 15, 1861.

For the New England Farmer.

#### THE ADVANTAGE OF AGRICULTURAL OVER MERCANTILE PURSUITS.

It is a lamentable fact, that the sons of our New England farmers have become imbued with the erroneous idea, that the pursuit of agriculture is a dull and unprofitable employment, affording, at best, but a scanty remuneration for a life of toil; they endeavor to persuade themselves that a more congenial and lucrative occupation is to be found in the neighboring city.

Such sentiments operate as a check upon the steady advancement of agricultural pursuits, and I think no effort should be spared to convince those who entertain them, that their course of reasoning is quite erroneous.

A nomadic people, accustomed to subsist on the spontaneous products of the earth, takes its first step towards civilization, when nature failing to satisfy their wants, compels them to cultivate the soil, to insure more abundant and regular supplies. Commerce, and the useful arts, are the developments of agricultural wealth, and could not exist without the natural and artificial appliances of agricultural skill. But it is evident that all cannot follow commerce, nor all agriculture; for the two exist as extremes of a well balanced system and the increase of the one or the other beyond natural bounds would result in mutual deterioration.

But unfortunately, young men overlooking the opportunities for advancement in the occupation of their fathers, long to satisfy their ambition in engaging in commerce; yet many merchants who committed the same error in their youth, return during the latter part of life to the country, entering with new zest and awakened energies into the fascinating pursuit of farming.

Then, too, a city life is eminently artificial; living day by day, shut in by lofty and uninteresting walls, passing through crowded thoroughfares, jostled by the passing multitude, it is no wonder, that these merchants, tired and disgusted with this wearisome life, should seek relief in the more quiet country. There a new life seems opened before them; every surrounding serves to awaken their finer nature, dull and blunted by disuse. They see before them new opportunities of usefulness; they take pleasure in watching the increase of their flocks, in beautifying their grounds with rare and curious exotics; improving their lands, by draining here and watering there; erecting commodious and useful buildings; busying

themselves in the advancement of the science of agriculture; here they find true happiness.

Curious as it may seem, nevertheless it is a fact, such men are doing more at the present day for the improvement of our mode of farming than the old farmers have been doing for many years.

But why cannot our young farmers follow, as nearly as possible for them to do with their means, the examples set them by these merchants? They cannot deny that there is a wide field for improvement in every department of agriculture.

Much could be said of the moral influence of agricultural life. With all nature constantly before us, we are taught the immutability of the Creator, as exhibited in the natural laws; we derive much pleasure in the contemplation of his works, while we learn the great lesson of life, the true way of preparing for the final harvest.

Of the lucrativeness of agriculture, no proof is needed. The experience of our best farmers is being widely disseminated through journals and pamphlets accessible to all, so that all may profit by it. The science of agriculture, or book farming, is now becoming the guide, and the true one, to all desirous of improving; in short, every inducement is being offered by States, societies and individuals for the energetic prosecution of farming. I sincerely hope that our young farmers will become reconciled to this most beautiful occupation, and reject the deceptive impression that they can succeed better in the mercantile profession.

F. E. F.

*West Roxbury, March 28, 1861.*

#### THE EXHIBITION PALACE OF 1862.

This structure is to exceed its illustrious predecessor in grandeur, in beauty of design, and elegance of finish. The main hall is to be 550 feet long, 250 feet wide, and 220 feet high! The picture galleries, built of brick, will be 2300 feet in length, 60 to 70 feet high, and from 35 to 55 feet wide. The nave and transepts are to be 2300 feet long, 80 feet wide, and 100 feet high. The sheds and other necessary buildings are planned on a corresponding scale. The whole work must be finished in less than one year from the present time, or by the 12th of February next. The Guaranty Fund, which amounts in all to £350,000, is headed by that truly royal patron of the Arts and Sciences, the Prince Consort, for £10,000. It is stated by competent authorities, that the entire structure will cost £250,000. It is to be located at South Kensington. The building will be made suitable for permanently remaining on the site, and will in every way outshine the Crystal Palace of 1851, or any other structure of modern times. A writer states that the great hall will contain a cubical area more than ten times as large as that of the great transept of the Hyde Park building, and that it would contain five of the centre transepts of the present Crystal Palace; its height will be unparalleled. There is a vast space to be occupied by the world's products, its inventions, manufactures, and works of art.

America will be allotted all the room she can creditably fill, and it is to be hoped that no time will be lost in making preparations for having the country well represented in all the departments. Many manufacturers may profitably ex-

hibit their goods to the millions that will be gathered here from all parts of the world. It is, however, the American inventors who will reap the richest harvest of profit and honor. There are a thousand inventions in use in America which are practically unknown in Europe, that could form one of the most attractive collections of the exhibition, and the publicity thus given them will amply reward the exhibitors. Aside from those directly interested in the exhibition, we shall expect tens of thousands of American visitors in 1862. It will be a good time for London and the Atlantic steamers. Even the Great Eastern will be able to find profitable employment during the exhibition year.—*London American.*

#### SOILING STOCK.

On pages 302-3-4 of the monthly *New England Farmer* for 1859, we noticed, and gave a pretty long extract from, a small work on the subject of the *Soiling of Cattle*, by Hon. JOSIAH QUINCY. This publication, containing, as it does, the result of the experience of Mr. Quincy, commenced in 1814, in keeping and feeding cattle through the entire year in the barn, seems to be directing a good share of public attention to this practice.

A Philadelphia paper gives an account of what one and a quarter acres, seeded to clover, have produced in the way of green crops this year. From the first of May to the twelfth of June, eight cows and one horse were fed at the barn with clover cut upon it; when two of the cows were sold, and the land continued to yield an ample sufficiency for the remaining six cows and one horse until August 1st, at which time there was still a large amount of growing clover. The cows averaged ten quarts of milk per day, although purchased without a knowledge of their milking qualities. The land was most thoroughly prepared, subsoiled, trenched and manured, and was valued at some two hundred and fifty dollars per acre. The writer says it will be seen that over two years of food for one cow was produced on the one and one-fourth acres; and that the plan of the owner is to keep as many head of cattle per year as he has acres of ground, by keeping a proper portion in clover, grass, corn, oats and roots.

Similar experiments have been made in Massachusetts and in some others of the older States, where pastures are poor, land dear, and milk sells high, with this plan of keeping animals all summer in stables and yards, and feeding them on green food, raised, cut and carried to the barn for that purpose. But farmers, generally, after one of our long winters, feel so greatly relieved when their cattle go forth from their barns to feed on the comparatively spontaneous productions of their pasture lands, that we have sup-

posed the example of Mr. Quincy in feeding stock all summer at the barn, would be followed somewhat reluctantly by the mass of New England farmers. We have little doubt, however, that this system might be advantageously adopted by many farmers who supply cities and villages with milk, and by mechanics, professional men and others who keep a cow or two for the supply of their own families with pure milk, and who farm, in connection with their other business, from one-fourth of an acre, to one, two, or a few more acres; being often troubled to hire pasturage, and to get their cow driven daily to and from it when hired, and who cannot purchase adjoining land short of paying from \$100 to \$1000 per acre. To all so situated it is important that their land should be made to produce as much as possible, and for this purpose manure is the one thing needful. Mr. Quincy claims that by the soiling system compost may be manufactured from each cow of a value equal to that of her milk. The *Homestead* says, "If we have the materials at hand to work with, we can readily make 25 cords [Query.—Ed. *N. E. F.*] of rich compost from each animal." Manure is the great want of New England farmers, and every plan for its increase which is not too expensive naturally commends itself to our attention. It is not strange, therefore, that the plan of soiling should be both advocated and practiced here, so far at least as to keep up cows while in full milk.

But, it is strange to us that a system which involves so much care and labor, and which we have ever regarded only as a sort of necessity imposed on farmers where land is limited, produce high, and population dense, should be recommended by our national teachers of agriculture as applicable to the pioneer settlements of our Western territory; that, because Mr. Quincy finds it profitable, near Boston, to soil his cows, where land is worth hundreds of dollars per acre, milk sells for six cents per small quart, and good manure for \$8 per cord, therefore, it will pay "several times over" everywhere else! Such indiscriminate recommendations do more harm than good.

Among the papers which make up the Patent Office Report for 1859, is one by D. S. CURTIS, of Madison, Wisconsin, which advocates the soiling system as adapted to all circumstances and conditions, even to the unbroken prairie regions of the South and West. He says explicitly that "it can be clearly shown that the system will pay *several times over*, even in the new States where lands are cheap and plenty." He would keep not only cows and working oxen constantly in the stalls, but all young cattle also; for he looks forward to the total abolition of farm fences.

This we regard as a wonderful specimen of Pa-

tent Office farming! certainly so, when compared with the facts stated a few years since in an article on Domestic Animals, by the same high authority, of which the following are specimens:

"Mr. C. ZERINGUE, of Jefferson parish, La., says: 'Cattle three years old are valued here at \$7 to \$8 per head. They are raised at very little cost, the only trouble being to drive them together once a year and mark the calves.'"

"Dr. WHITE, of Quincy, Fla., writes: 'Value of cattle three years old about \$6. The only expense of keeping is to ride into the range and mark and brand them in the spring.'—*Patent Office Report*, 1849, p. 297.

"Mr. TURNER VAUGHAN, of Wilson County, Tenn., writes that 'the cost of rearing cattle until three years, is as follows; first year, \$1; second year, \$2; third year, \$3. On my farm this can be and is done, and pays tolerably fair wages. A short time since I sold thirty-five head at the above-named age for \$181, and did very well.'"—*ib.* 1850, p. 117.

"Mr. MOSES COBURN, of Whitewater, Walworth County, Wis., says that the cost of rearing steers until they are three years old, in that region, is about \$8."—*ib.*, p. 115.

The farmer, then, who should "green soil" a calf till three years old, in Wisconsin, would receive at the rate of near five and one-third cents per week—less than one cent a day—for all the labor of raising, cutting and drawing to the barn the food for the aforesaid steers. How many times over will such soiling pay, especially in the hurrying season of the wheat harvest; when all your neighbors' steers are growing fat on the abundant products of Uncle Sam's free pasture?

In the annual report of the Secretary of the Board of Agriculture of Massachusetts, for the year 1856, are the details of some very interesting experiments with the food and milk of fifteen cows, which were kept on the State Reform School farm. For the purpose of ascertaining the cost and value of food, the animals were weighed twice a day, and the food also carefully weighed. The result as to the cost of the food of each cow, per day, was as follows:

|                                  |          |
|----------------------------------|----------|
| When wholly kept in barn.....    | \$0.2430 |
| When kept wholly in pasture..... | 0.0715   |

English hay was valued at \$15 per ton, meadow hay and corn stalks at \$10 per ton, roots at half a cent a pound, &c,

Pasture land was estimated at \$40 the acre, and five acres allowed to each cow. Interest on \$200 one year, \$12; taxes, \$1; \$13 divided by the days in a half year give seven cents and fifteen one-hundredths as the cost per day of pasturing one cow.

"In the report of the same Secretary for 1858, (p. 24,) it is said that four cows were fed eight days on winter rye when in blossom, and that they consumed the crop growing on 13,384 square feet of ground, which would amount, estimating

the rye at \$20, to \$6.14, showing the money value consumed daily by each cow to be \$0.1919, (nineteen cents and nineteen one-hundredths,) nearly three times the estimated cost of pasturage, and considerably less than the cost of dry feed at the barn.

In Mr. COLMAN'S "Fourth Report of the Agriculture of Massachusetts," (1841,) p. 256, some facts are stated in relation to fifty cows kept in Lowell for the purpose of obtaining their manure for some use connected with coloring goods. The cows were kept constantly in the barn. In two years they consumed 418 tons of hay, at an average cost of \$18.50 per ton; and for green vegetables during the same time were paid \$1018; making \$8751 as the total cost of the two years' feed of fifty cows—which is, according to our figures, a small fraction less than 24 cents (23.97) per week for each cow. No calves were raised. The quantity of milk obtained from the fifty cows in the two years, was 99,705 quarts, which at five cents per quart, amounted to \$4985.25—*three thousand seven hundred and sixty-five dollars and seventy-five cents* less than the bare cost of the food they ate.

It will be perceived that in none of these cases is any allowance made for attendance, or for marketing the milk—the only object being to determine the cost of food consumed.

In the monthly *Farmer* for January, 1857, we gave a synopsis of the statement published by Mr. Horsfall, of England, in relation to his experiments in the feeding and management of milch cows. Although he goes so far as to warm his stables in winter, by artificial heat, as nearly as possible to a temperature of 60 degrees, even cutting and steaming most of his cows' food, yet from May to October—nearly one-half of the year—they have the range of a pasture. His language is:

"During May, my cows are turned out on a rich pasture near the homestead; towards evening, they are again housed for the night; when they are supplied with a mess of the steamed mixture, and a little hay each morning and evening. During June, when the grasses are better grown, mown grass is given to them instead of hay, and they are also allowed two feeds of steamed mixture. This treatment is continued till October, when they are again wholly housed."

We have thus presented, perhaps somewhat disconnectedly, a few facts which may deserve the consideration of those who are interested in the subject of soiling cattle.

REMEDY FOR RHEUMATISM.—Dr. Bonnet, of Graulhet, in France, states, in a letter to the *Abeille Medicale*, that he has long been in the habit of prescribing the essential oil of turpentine for friction against rheumatism, and that he has

used it himself with perfect success, having almost instantaneously got rid of rheumatic pains in both knees and in the left shoulder. He adds, that having several times soiled his hands with coal tar and other sticky substances of the same nature, and used the essence of turpentine, freely, like water, to wash his hands in, and then washed them again in soap and water, he, after drying them well, always experienced a prickly sensation, similar to that which is felt on receiving electrical sparks on one's knuckles. This sensation would last about two hours; and it is to this exciting action of oil of turpentine that he attributes its efficacy in rheumatism.

For the *New England Farmer*.

#### A GOOD CROP OF CORN, AND PRACTICAL FARMING.

Salmon Snow, of Saugus, raised last season from one acre of sward land, one hundred and seven and a half bushels of corn. The land was plowed deep, and well turned the fall previous, and harrowed smoothly in the spring. The only dressing it had was a small shovel full of common barn manure in the hill; hoed twice, the stalks cut at a proper time, and the corn suffered to remain in the field until late in the fall. This I considered a great yield. But it did not happen by chance; it was the result of doing the work properly, and selecting good seed.

Corn is considered one of the standard crops in New England. The farmer depends more upon his corn crop than any other, and yet the majority of them pay but very little attention to any improved method of cultivation. Draining is generally considered a waste of time and money. Selecting and improving seed corn is but little thought of, and yet it is one of the most important things to be attended to. It should be selected in the field. The best full ears should be picked off before harvesting, and traced up and hung in an airy, dry place. It is improved by taking it off before it gets hard and dry in the field. Corn ripens earlier by bringing it from the north. Land that usually yields but 25 to 40 bushels to the acre by the old skimming process, could as well be made to produce 75 to 100 bushels per acre, with no more labor.

Old ways and habits are hard to be changed or broken up. Much has been written, said and practiced upon draining, yet the majority of farmers regard it as an outlay that does not pay; while it is the reverse, nothing pays better.

Notwithstanding all that has been written against pruning apple trees in the spring, people persist in doing it at that season, and ruin their trees, only because it is an old custom, and a little more convenient. Why not shear your sheep in the winter, when you are most at leisure?

Farmers, do your work well, and at the proper time, and we shall not hear so much croaking about farming being unprofitable. I am ashamed of the man that attempts to prove that farming is unprofitable. Sufficient has been published in the *N. E. Farmer*, during the past year, to prove that farming is the most elevating occupation for man, and that the farmer is the nobleman of the land. Farming is now in its infancy. There are many things to be corrected and improved. The *N. E. Farmer* is doing its best in the work. The

agricultural meetings at the State House are doing a vast amount of good in correcting old errors and mistakes. No one can attend them without being greatly profited. The subjects discussed there are all practical, and draw out the information needed. The young farmer can go into one of those meetings and learn from a speech of twenty minutes from one of those old practical farmers upon some particular branch of husbandry, that which would take him years to learn by practice. A. PHILBROOK.

*East Saugus, March, 1861.*

#### EXTRACTS AND REPLIES.

##### A NUT FOR SOME ONE TO CRACK.

MR. BROWN:—I would inquire of you or some of your correspondents through the *Farmer*, how I can manage a two-acre farm so as to give me employment through the summer season, and give me a fair remuneration for my labor? That is, what crops may be raised that will be marketable, and sell readily for cash? My lot is three miles from the Western Railroad, and twenty from the nearest city, (Springfield,) yet there is an express running three times a week from this place to the depot. The soil is dry and warm, about half quite good, and the remainder rather poor.

What kind of strawberry would be best adapted to this latitude, and how many plants would be required per rod? Would that be a profitable crop, so far from market? How soon would dwarf pears be in bearing, if set next fall?

*Huntington, Mass., May 1, 1861.* C. F. R.

REMARKS.—We leave the above for some of our intelligent correspondents to answer, as the exercise may be useful to them, and if the questions put are carefully considered and answered, will be of value to a large number of persons.

##### EGGS AND SHEEP.

Can hens' eggs be sent by express from Uxbridge, Mass., to this place, (Waterville, Me.,) without injuring them for hatching?

Which would be the most profitable, where one keeps a small flock of sheep and lives near a large village—to keep sheep whose flesh or wool are their leading merits?

Had I better procure my garden seed that grew in the State where I live?

*Waterville, Me., 1861.* B. T. STEVENS.

REMARKS.—If carefully packed on a layer of hay or straw thick enough to afford some spring, or elasticity, they would go safely. Cannot tell about the sheep—do not know what your village demands. Select sheep that are good for both flesh and wool. If you can purchase well-ripened seeds grown in your own State, do so.

##### SCRATCHES ON HORSES.

Having seen in your valuable paper some remarks in regard to scratches on horses, I would say there is only one remedy, and that is, to keep the castors on the inside of their legs soft, by an application of soft grease, and peeling them off.

If this is done, my word for it, the horse will never be troubled with them; and with those affected, the application of this simple remedy will effect a sure cure. E. MINER.

*Walpole, N. H., May, 1861.*

##### SHEEP AND OATS.

I noticed in a late *Farmer* an inquiry, "Will oats hurt sheep?" I would answer the inquiry by saying if "N. M." will select some good, healthy sheep, in the fall, and commence giving them one gill of good, clean oats every day, and what good hay and pure water they will take, and give them a good, warm shed to lie under, and then increase the amount of oats slowly up to one quart to each sheep every day, I will warrant him that the oats will not kill his sheep. I would also give him a recipe for killing lice on calves. Commence in the fall when cold nights commence, and give each calf a handful of good, clean oats every day, with what good hay and water they will eat and drink; then increase the amount of oats slowly for six to ten weeks, and then give them so many so they will leave a few in their troughs, and take them and rub them on their backs, and I will warrant that the calves will not be troubled with lice! A SUBSCRIBER.

*Warren, Vt., April 2, 1861.*

##### HOW TO GET FITTED FOR THE FARM.

While my associates in the prime of life, aroused by the war cry, are rushing to the scene of strife, I would not forget that our agricultural interests still demand attention. But I am perplexed with the question as to how I may best advance its interests.

Have we already enough of the theory of farming, and should young men apply themselves to putting it in practice, or may those whose circumstances admit of it, derive real, practical advantage from a course of study at our agricultural colleges? Is the system of study to the purpose at these institutions, and such as farmers stand in need of? I. W.

*Orange County, Vt., May, 1861.*

REMARKS.—Enter Mr. WARD's school at Bernardston, Mass., where you may get both the theory and practice of agriculture, and qualify yourself to become distinguished as a leading agriculturist.

##### DRIVE PIPE FOR A HYDRAULIC RAM.

In reply to the inquiry of Mr. E. C. Allis, for a suitable drive pipe to force a No. 4 hydraulic ram, allow me to say that from actual experience, I have found a malleable iron pipe, inch and one-fourth in size, to be the article exactly suited to the purpose. The cost is less than that of lead of the same diameter. J. H. G.

*Hubbardston, May 7, 1861.*

##### SILK WORMS' EGGS.

I should like to obtain information where silk worms' eggs can be procured. As I have a few mulberry trees, I could raise our own silk thread for family use. I have formerly done so, but am now destitute of those eggs, and do not know of any in this vicinity. ISAAC STEARNS.

*Mansfield, May 8, 1861.*

## A "CHAFFING" MACHINE.

In your issue of April 27th, there is an article pertaining to the corn crop, by "K. O.," in which he speaks of a "Chaffing Machine." If the machine does what he claims it will, it certainly is a valuable addition to a farm. Is there any machine near? What is the cost of the machine? If you have seen it work, please write what you think of it.

E. S. FLETCHER.

Whitinsville, April, 1861.

REMARKS.—We suppose a common hay or straw cutter is meant. The one referred to by "K. O.," we know nothing of. It may be one of the several kinds in common use.

## AN ECONOMICAL HEN HOUSE.

Will you or any of your readers describe an economical and well-constructed hennery for keeping fifty to one hundred hens, and oblige.

A SUBSCRIBER.

South Deerfield, Mass., 1861.

REMARKS.—In the course of a few weeks we will comply with the above request.

A NEW WEEDING WHEEL HOE.—We have been using, for a few days past, a new wheel hoe, which, for weeding between rows of vegetables in the garden, or any light work to which such an implement is adapted, is the best we have yet seen. It has but one wheel, and that guides the cutter and enables the operator to move the implement along easily and with facility. The cutting part is a thin plate of steel which may be raised or lowered at pleasure, and when broken or run out, replaced at trifling cost. It is the invention of Mr. B. F. TAFT, of South Groton, which will prove a valuable aid to the gardener, and will be especially acceptable to lady gardeners.

## LADIES' DEPARTMENT.

## A SIMPLE CURE FOR THE ROSE-PESTS.

[We have received the following note from Mr. James H. Park, an experienced florist in Brooklyn. The simple remedy which Mr. Park suggests has been tested by him in his skillful treatment of his own plants.]

To the Editors of the Independent:—The growers of roses in and around our cities have many pests to contend with, chiefly owing to the scarcity of their natural enemies, the birds.

First in the season, on the early shoots come myriads of the "green fly." With the young buds comes a voracious little black-headed caterpillar, which weaves itself a retreat among the tender leaves, and has a decided penchant for "sweet little buds," a bunch of which he can readily dispose of for breakfast. Then comes the "Thrip," a diminutive white fly, which can easily be seen by shaking the branches. This little pest punctures the leaves underneath, causing them to become speckled with white, and destroying their

vitality to a great extent. With it comes the "Strip-worm," of late years especially destructive. It is a small green worm, and feeds underneath the leaves, stripping them to the scarf-skin, not only disfiguring the plants, but destroying their growth for the season.

To cure all these ills the rose is heir to, it is only necessary to syringe the plants, say once in two weeks, with an infusion of *ailanthus leaves*—which I have made in the following manner, but which may probably be improved upon by varying the quantities: Take as many young leaves or shoots of *ailanthus* as can be pressed into half the depth of a common pail. Pour on boiling water till the pail is full. Let the water stand fifteen minutes, then pour it off, and add to it about thrice the quantity of clean water, which use when cold. Syringe thoroughly, particularly under the leaves, and begin early in the season, before the enemy has his vantage-ground taken.

This I have found to be an effective remedy, without injuring the plants. How it effects "Red Spider," I have had no opportunity of testing. There is little doubt, however, that it would keep the measuring-worm from our street trees, if applied in good time.

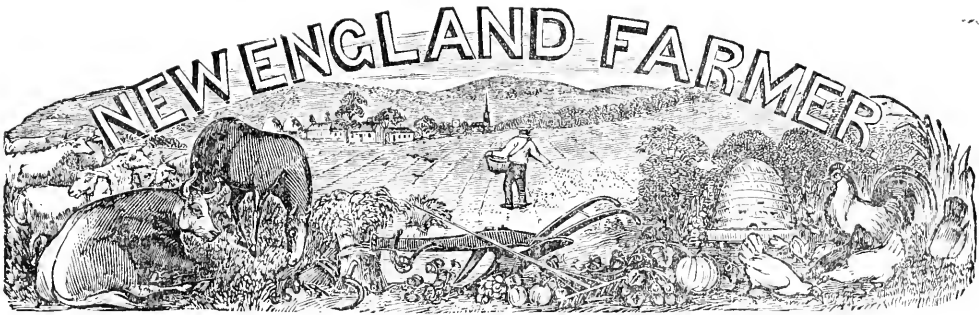
I believe a chemist might prepare from the *ailanthus* leaves and flowers a decoction which would be most valuable to all gardeners throughout the year. The above receipt is too valuable for any lover of flowers to reserve exclusively to himself, and as the remedy is cheap enough, I hope those who have suffered from the insects will not fail to apply it; so that, even in the city, we may have good roses, and green leaves with them, throughout the season. A writer in the *Tribune* suggests the importation of house-sparrows as a remedy for street-worms; but these sparrows are seed-feeding birds, and though they may vary their repasts a little, as domestic animals and birds are apt to, I question after many years' intimacy with them if they would touch so tough and ugly a customer as the measuring-worm.

## STEWED BEEF.

Housewives who are in a habit of using only steaks and roasts, make a great mistake. A capital dish may be made out of the "chuck" as the butchers call it, or the neck, when well prepared. Select a piece of meat as large as the demand of your table may require, wash it well to remove all the blood or soil from the outside, have your dinner pot perfectly clean, salt and pepper the meat well, lay it in the bottom and cover it with water; boil it from two to three hours, or till it is thoroughly tender; add half an onion, a sprinkle of sage, thyme or summer savory.

If the meat is fat, let the water all stew out a half hour before it is put on the table, and when your meat is browned well on the lower side in the gravy, turn it over and brown the other side. When ready, take it up, add a little flour thickening to the gravy, or if you have a dredge box shake the flour into the hot gravy and brown it, then add boiling water, and you will have a dish equal, and to my mind superior to the common roast beef, upon boarding-house tables.

Care must be used to turn it; and equally necessary is good judgment in having it thoroughly well-cooked.—*Field Notes.*



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. XIII.

BOSTON, JULY, 1861.

NO. 7.

NOURSE, EATON & TOLMAN, PROPRIETORS.  
OFFICE...34 MERCHANTS' ROW.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

SUGGESTED BY JULY.

"O, balmy, breezy, bounteous, beauteous summer!  
To men and women, little girls and boys,  
To birds and beasts thou bringest many joys,  
And art, indeed, a truly welcome comer!  
Now stroll in pastures green, fat sheep and cows,  
Now vernal blades prepare for autumn sheaves,  
And woods (though stationary) take their leaves,  
And all politely make their prettiest boughs  
Now the blithe farmer in the early morn  
With sturdy steps strides o'er the fallow field,  
And plants in hope that, though awhile concealed,  
The grateful harvest may produce the corn;  
And so return him from the fruitful mould,  
His gift augmented by a hundred fold."



JULY comes to the farmer burdened with many duties. He has been taught by the great teacher, EXPERIENCE, that he must "make hay while the sun shines;" while his hay and grain fields, in different stages of development, suggest the necessity of accelerating the early harvest; while the buckwheat fields and fields of turnips are yet to be sown. The "world" of spurious vegetation, which springs up in his corn-fields, also requires to be extirpated, and his tillage lands generally should be looked to, and cleansed of weeds, before he commences harvesting his hay crop. It should be the aim of the farmer, during this season, to do all the work which devolves upon him in the extended routine of his vocations, in the most perfect and thorough manner.

If it be true, as Montesquieu remarks, that "countries are not cultivated in proportion to

their fertility, but to their *liberty*," our own country must soon take precedence in perfection of culture; and if that perfection attains to a parallel with the popular liberty enjoyed, we shall have no equal on the earth, for no people enjoy greater freedom, or are better qualified to profit by their advantages, than the farmers of our own happy land.

The labors of JULY are, it is true, more fatiguing than we are called on to perform in the other months embraced in the annual cycle. Haying, with all that has been accomplished by science in mitigating its toils, is laborious and exhausting to physical strength. But it is not by any means necessary for those employed in this avocation, to destroy the health in its performance. The farmer who rightly understands his business, and the capabilities of those whom he employs, will find no difficulty in obviating such results. The mowing machine and the horse rake will so far lighten the most irksome parts of the work, as to render severe fatigue unnecessary. With good weather, the hay crop can now be secured in less time, and in much better condition than was required for its accomplishment twenty, or even ten years ago, and with proportionably less expense. Science has done, and is still doing, much to alleviate the labors of the farmer, as well as to increase his profits. "If," says a late writer, "we contrast the condition of the farmer of the present day, with the condition occupied by the farmer of 1800, we shall find the discrepancy almost as great as that at present existing between the Southern master and his slave." This is too wide a range for us to accede to,—but it is true that we have yet much to learn, even in the details of agriculture, and that we are still far behind our transatlantic brethren in the acreable product of our soils. Numerous causes have led to this result, though it ought not to be expected of us, now in our youth, compared with those older countries, to show as good

a condition of the art as they can there. Mr. IRVINE, a member of the British Legation at Washington, in conformity with instructions from his government, has made a report to the authorities at home, on the state of agriculture in this country, and among many other things which evince the clearness of his judgment, he remarks:

"The immense extent of territory, and the comparative scantiness of the population, have induced a good deal of carelessness in the cultivation of the soil. The price of land being low, the proprietors have found it more convenient to work out their land, than to expend their capital in manures, and other means of improving its productive qualities; and when the soil has become exhausted, the owners have left it for some new settlement. The consequence of this has been that, instead of full and abundant crops, in many parts of the older settled portions of the country, the fields do not yield, at present, nearly as much as formerly, and in many localities, not a quarter as much; and that notwithstanding the natural advantages of climate, the facility of transport to available markets, and the lightly taxed condition of the farmers and planters, the ratio of increase in agricultural products of the United States is not in proportion to the increase of population."

We quote the above to show the conclusions to which an intelligent observer arrives, when looking into the condition of agricultural matters in this country. That his statements are true of some parts of the country, we cannot doubt,—but the statistics of agricultural industry in our State, and we believe in New England, would, we think, show a different state of things. In Massachusetts, as a whole, there certainly has been a noticeable advance in the art within twenty years, so that now a point has been attained at which improvement is to receive a new and vigorous impulse. The *motor* which is to be brought to bear upon its mechanism, will be found to exist in the elements of our educational and social system. Already has the popular mind begun to respond to its emending influences, and to shake off the old prejudices which have so long burdened and oppressed it. The Newspaper is doing its work—silently but surely—in the happy homes of our husbandmen—scattering wisdom like pearls, and opening up new pathways to happiness and prosperity. In every circle of social life—in every department of rural employment, its influences are felt for good. It comes like an angel of mercy, noiselessly, and as noiselessly accomplishes its merciful work. Its design is to afford to the laborer a more extended field of knowledge, and consequently to widen his sphere of action; to bring him to an appreciation of the immense capabilities of agriculture, when prop-

erly understood and practiced, and make him familiar with the great and substantial basis of the industry of nations. In working out this design, it has, thus far, been eminently successful.

For the *New England Farmer*.

#### NOTES ON VARIOUS SUBJECTS.

##### HOW TO CURE SCRATCHES—HOW TO SHOE A VICIOUS HORSE.

Having a horse badly affected with scratches, last summer, my farm assistant cured it by applying a mixture of lard, sulphur and a little "red precipitate." This he assured me had proved successful where other remedies had failed. The proportion of each ingredient was not definite, but very little precipitate will suffice.

A neighbor who owns a horse that is bad to shoe, says if such a horse is blindfolded and run around in a circle until he becomes dizzy, his feet can then be handled without difficulty. In very bad cases it is sometimes necessary to run him around until he falls down.

##### WHAT APPLES SHALL WE PLANT?

I must "take exception to some of the varieties, recommended in the weekly *Farmer* of April 20. *Maiden's Blush*, although a good grower, productive and one of the fairest and most showy apples in cultivation, is, to my taste, very deficient in flavor—so much so that I have cut it off and grafted with other varieties. *Danvers Winter Sweet* I consider far inferior to *Seaver Sweet* and *Ladies' Sweeting*, and the latter will keep two months longer.

*Russet Sweet*.—If this comes up to my idea of a good baking apple I would like to obtain it. To come up to my standard of a first-rate baking apple it must be *very sweet*, bake tender, and have a thin skin, and if, with all these, it retains its form after baking, I should like it so much the better. I have not yet found a better baking apple than the *Holden Sweet*, an apple somewhat resembling the *Golden Sweet* in size and color, but about two months later, and much sweeter. But what is most wanted now, is an apple that will bake as well in the winter and spring months as our best varieties do in October. I am now using a native variety which, although it has some faults, is better than *Seaver*, *Ladies'* or *Danvers Sweet*, for this purpose. I have but just obtained the *Tulman Sweet*, and have not compared it with that.

*Early Harvest*.—This, although a first-rate fruit, I find rather difficult to raise; it does not produce very abundantly and the rose-bugs sometimes destroy more than half of them.

*Faneuse*.—The only fault with this is a tendency to grow knarly. It is thin-skinned, fine grained, of a very pleasant, delicate flavor; it is in eating a long time, and although not large, good specimens are not excelled in beauty.

*Gravenstein*.—This is the best dessert apple I have ever seen, but I think "J. W. L." is mistaken when he gives it credit for bearing early.

##### DOGS AND POVERTY.

One of your correspondents thinks dogs and poverty are not associated in Massachusetts. They certainly have been so in this part of the



State. The dog law has made some improvement, but it is only a beginning of what should be done. I can see no reason why dogs should be allowed to run at large, any more than cattle, sheep or hogs. When the owners of dogs confine them *strictly on their own premises*, and not till then, they will have some show of reason for their grumbling about dog the law.

**"CUTTING TIMBER AND THE MOON."**

Mr. Otis Brigham claims to have facts in his possession to show that timber cut in the old of the moon, in February, is safe from powder-post. I know nothing of Mr. B., but when he claims that the position of the moon has any such influence, I beg leave to say that the thing looks to me so entirely without reason in itself, that I should require more than one or two accurate experiments to satisfy me that the correct reason had been found. In order to prove his conclusions correct, he must not only ascertain that timber cut the last of February was free from powder-post, but that timber cut a few days from the old of the moon either way was not equally free, and to make everything sure, the timber must be of precisely the same quality in every respect, and the experiment must be repeated several times to avoid any accidental influence. I have many times been assured that certain changes of weather never failed to follow certain changes or positions of the moon, apparently without considering the fact that if these claims were well founded, it would be just as easy to predict what the weather would be a thousand years in advance, as to tell what it is at the present time. One of my neighbors once told me that we were sure to have a certain change of weather after a Saturday change of the moon, and that he never knew it fail. It so happened that the next two Saturday changes of the moon were followed by a state of weather exactly contrary to that which he predicted, and yet he still believes firmly in the moon's influence on the weather, and doubtless would still tell you that he never knew that particular sign fail.

**TWELVE-ROWED VS. EIGHT-ROWED CORN.**

Mr. Fletcher, of Vt., claims that the number of rows make no difference in the ripening of corn. I admit the possibility of a twelve-rowed variety of corn, with cobs no larger than in a similar sized variety of eight-rowed, in which case it might ripen equally well, but such a case would be an exception, and not the rule.

With regard to the King Philip corn which he condemns, I can say there is great difference in this, according to the source from which it came. I procured mine from Ballston, N. Y., and it was earlier and better in every respect than some purchased by a friend under the same name from Boston.

WM. F. BASSETT.

Ashfield, May 27, 1861.

**WHITEWASH FOR STABLES.**

Mr. Whitewash should always be appointed Chairman of the General House Cleaning Committee. His qualifications for filling this situation are unquestionably great. His sanitary influence is undoubted, and he imparts an air of cleanliness and cheerfulness wherever he appears. The best way to initiate him into his situation is

as follows: "Take a clean, water-tight barrel or other suitable cask, and put into it half a bushel of lime. Slake it by pouring water over it, boiling hot, and in sufficient quantity to cover it five inches deep, and stir it briskly till thoroughly slaked. When the lime has been slaked, dissolve it in water, and add two pounds of sulphate of zinc, and one of common salt. These will cause the wash to harden, and prevent its cracking, which gives an unseemly appearance to the work. If desirable, a beautiful cream color may be communicated to the above wash, by adding three pounds of yellow ochre, or a good pearl or lead color, by the addition of lamp, vine or ivory black. For fawn color, add four pounds of umber—Turkish or American—the latter is the cheaper—one pound of Indian red, and one pound of common lampblack. When applied to the outside of out-houses and to fences, it is rendered more durable by adding sweet milk, or some mucilage from flax-seed; about a pint to the gallon will suffice." All stables should be whitewashed once or twice every year, as the increased white light which it reflects tends to promote the health of animals. Hand round this information to every man who owns a horse or cow, because for one stable that is whitewashed, there is a hundred on the walls of which no brush was ever laid.—*Scientific American*.

**COE'S SUPERPHOSPHATE OF LIME.**

In view of the circumstances of the times, the corn crop becomes a matter of special interest. The presumption is that the planting is finished, and while it is needless to urge the extension of the crop already laid out, it is not too late to impress the necessity of other methods of increase that the land already planted may yield its utmost. It is not too late to manure the corn with any fertilizer you may be able to command.

We have published various communications of the value of Coe's Superphosphate of Lime. And we are informed that the demand has been far more than they could supply, and we would say to those who have not used it in the hill to apply it at the first hoeing of the corn. We copy the following letter:

Dorchester, 1861.

GENTS:—I have applied it broadcast on soil prepared for rye and grass seed, harrowing it in before sowing the seed. I have also used it as a top-dressing for grass land—and have put it in the hill with corn, without any other manure, and have raised good crops.

During the past summer, a neighbor of mine who harrowed some corn, which came up looking very thin and yellow, and who thought he should lose his whole crop, was induced by my suggestion to apply the superphosphate in the hill previous to hoeing. In the autumn he requested me to look at the result which he considered very remarkable. The stalks appeared much stouter and the ears much fuller, than another piece side by side which had not received any of the manure, and he attributed the change in its appearance to the superphosphate.

Yours, with regard,

HENRY GREW.

*For the New England Farmer.*

OPPORTUNITIES AND DRAWBACKS OF FARM LIFE.

*Boston, March 8, 1861.*

F. HOLBROOK, Esq., *Brattleboro', Vt.*

DEAR SIR:—I have just received the *Country Gentleman* for this week, and have read and re-read your letter headed "Opportunities and Drawbacks of Farm Life," which interests me as much as it will our unknown friend "E.," of Chicago. I have read the several letters of John Johnston, J. W. Proctor, J. W. Colburn, and last, that by yourself, in reply to "E.'s" inquiries, with much interest, as it has been a question in my mind for some time, whether a man bred to business life in the city, could, with a few thousand dollars, purchase such a farm, and so stock it as not to be required to lead a "slavish life," to eke out a decent living. That men bred to farming are enabled to live "generously and independently," my own observation has taught me was the truth, and I have often envied that comparative freedom from "harrassing toils and care" that prosperous farmers appear to enjoy, and which is the lot of but few business men in large cities. Now, sir, being weary of the ups and downs of a business life, and having been for some years studying this matter of the probabilities of my succeeding in farming, I am about decided, by the concurrent opinions and testimony of yourself and the gentlemen previously named, to gratify a long cherished desire. Therefore, if not too much trouble to you, may I ask you to inform me what I could purchase a good farm, with good buildings, for, in your vicinity, or in that section of Vermont, for if I attempt farming in New England, I should prefer the valley of the Connecticut to any other section. If I could do so, I should much prefer to lease a farm for one or two years, so that I might settle the question by practice and experience, whether I could do well ("not support an expensive or showy style of living,") at the business, before purchasing. I do not expect you to give me anything more than a general idea of the prices of farms, &c., but for that, (if not inconvenient,) I shall be obliged. Should any of your friends or acquaintances have a farm that he would like to let, I should like to hear from him or them.

Very respectfully yours, E. B. W.

*Brattleboro', March 14, 1861.*

To E. B. W., Esq.

DEAR SIR:—I have your esteemed favor of the 9th inst., and would certainly be happy to render you any assistance in my power towards the accomplishment of your desire to enter upon farm-life. I shall venture to send your letter and my reply to the *New England Farmer*, of course withholding your name. I do this, because the letters I am receiving from time to time from business men who are desirous of going back into the country to purchase a farm and secure a rural home, decidedly indicate that a considerable interest is felt in such subjects as you now introduce to my attention. I trust you will receive this as a sufficient excuse for the liberty I take with you.

I do not just now think of desirable farms for rent, or for sale in this vicinity, though there may

be several such. Should I hear of a favorable opportunity for you to purchase, I will communicate it hereafter. The prices of desirable farms hereabouts would range from five, to ten or twelve thousand dollars—the value depending considerably upon size and location, and quite as much, perhaps, upon the latter as the former. You could hardly determine whether or not you could do well at farming, by leasing a farm for a year or two. Successful farming comes from a taste and tact for the business, and the steady prosecution of a plan of cultivation and management adapted to the land and markets, and which must necessarily reach through at least five years, to begin to indicate its full results. After two years of practice, you would more readily plan well than at the first start, because you would see more clearly what was needed.

If you conclude to embark in farming, you would find the valley of the Connecticut a desirable section to settle in, all things taken into account that ought to be considered—such as well-ordered and refined society, schools, churches, good roads, great thoroughfares of travel, good local markets, healthy climate, &c., &c. As you have been accustomed to city life, do not buy a farm too far back from these great thoroughfares, especially in our northern latitudes, where there are the snows of winter to contend with. Do not buy a farm that has not a plentiful supply of muck upon it, accessible for use in compost with manure. I regard this as an important point for the successful improvement and profitable culture of our long worn New England soils. With this resource, and the muck judiciously managed in composting, we can fill our old soils with more than primitive fertility, and indeed make them nearly as productive as the prairies of the West, while our markets are far superior to those there. Within a week or two, you will see in the *Farmer* a letter addressed to me by an old and early friend who has recently gone to farming, and asks for information upon various matters. You will also see the first one of three communications from me, in reply to his letter, in which the matter of composting muck with various substances, is discussed. [See May and June Nos. of the *Monthly N. E. Farmer*.]

Vicinity to a good local market is quite desirable in farming, notwithstanding that with that consideration, the price of the farm to be purchased would be greater than if you went further back into the rural districts. Each hundred miles you go north, makes a perceptible difference in the earliness of winter, and lateness of spring. But then there are various considerations which go to influence one in fixing his location; and some of them that would point him decidedly to one section, would be overborne by others leading him to another.

If you have a decided taste for the country, and for farming, and can command capital enough to buy a farm, and have a little floating means left, to operate with, I see no reason why you may not find pleasure and satisfaction in that way of life, and make a fair profit at the business besides. After a man has got on somewhat in life, as perhaps you have, and has been accustomed to other pursuits than farming, it is desirable and perhaps necessary that he should have capital to do with, in entering upon his new pursuit. If he has been

trained a business man, too, he will know how to operate with capital to advantage, better than a man who had only been used to small things in a small way, and never had his mind opened to liberal enterprises by sharp contact with the great business world.

A young man, who has been brought up from early youth to farm labor, and who has a rugged constitution for it, and considerable mind and enterprise *by nature*, may buy a farm, say at twenty-five years of age, run largely in debt for it, and in the end pay for his farm and accumulate something besides. A dull head, however, could hardly do that thing, even though he had been trained to manual labor.

But I am inclined to think that one who, like yourself, has lived for some time in the city, and been accustomed to other pursuits than farming, should, in entering upon the latter, have some means to work with, over and above his farm. A *little* floating capital, even, is a very decided help in farming. *His* success will usually come mostly from comprehensive and well considered plans of farm-management, a system of thorough culture which shall make his land highly productive, and the shrewd investment of a little money now in this thing, and now in that, in the purchase of this kind of stock, &c., or of that, all which he sees can sooner or later be turned again at an advanced price. In short, with some floating capital in hand, and with the enterprising business views and habits to which he has been trained, he can take advantage of times and seasons in the purchase and sale of things, and adapt his farming operations to them. These remarks are not meant to be in disparagement of any person or class of persons, but to show that different circumstances require different means and methods to ensure success.

Should you succeed in suiting yourself with a farm, you may draw on me for such information as I can give you.

Very truly yours, F. HOLBROOK.

*For the New England Farmer.*

#### INSECTS ON FRUIT TREES.

MR. BROWN:—On looking over my apple trees to-day, in company with a friend from New Bedford, I chanced to remark that it was a pity some sure and cheap preventive of the depredations of insects upon our fruit trees and fruit could not be devised that was capable of being applied by the least skilful operator. He surprised me by remarking that he was not sure but that it had already been attained, and instanced an experiment of a man of his acquaintance that last season took a piece of light canvas, cut it in the form of a cone, tying the small end around the trunk of the tree, expanding the base with a hoop and smeared it over with tar. This made a bringing up place for all such insects as pass up the tree. They were found in large numbers in the folds of the canvas, and they and their larvæ destroyed. A lady visiting in the neighborhood of this gentleman, stated that for two seasons past a man in the vicinity of Providence, R. I., scraped his trees clean of old bark and bugs, then tied cotton batting around the trunk, which has proved, for two years past, a sure barrier to their

ascent into the tree. The insects become entangled in the cotton, deposit their larvæ there, and both die without hope of escape. Incredible numbers of them are found all through the loose batting.

Would it not be well for these simple, reputed remedies to be tried very generally by all, on a few trees, even now, and report the result? The expense is a mere trifle, and the trouble small. Should success attend the experiment, the facts cannot be too widely known.

Rochester, May 15, 1861. JOSEPH COE.

*For the New England Farmer.*

#### CORN COBS AND COB MEAL.

MR. EDITOR:—An item in a late number, (March 30,) induces me to give my conclusions upon this subject. It used to be our custom to feed a considerable portion of our corn in the form of cob meal, without, however, making any particular experiment to ascertain its comparative value. This plan is now changed, for the following reasons:

1. It is too expensive. If the miller is allowed to toll the grain, unless he is more honest than some millers, he is apt to "dip where there is more corn and little cob," and if money is paid for grinding, it is little better. The last time I had corn ground in the ear, I measured six bushels in my half bushel, which would not have yielded over three bushels shelled corn and carried it to a mill whose owner has the credit of being entirely honest. This was then passed through the "cracker," and according to his measure, made seven bushels, for grinding which I was charged forty-two cents, or twenty-four cents for grinding the cobs.

2. Although I consider it very good feed for some animals, it does in some cases produce constipation, and doubtless in others is of no value, while such as are likely to be materially benefited by such feed, will eat the cobs readily without the trouble and cost of grinding, and in just such quantities as their appetite demands, without being obliged to take what they do not want in order to get the meal.

3. In feeding growing animals, which require something more bulky than clear corn meal, I prefer a meal made from a mixture of corn and oats, as containing more of the elements required for growth.

In feeding cobs whole, I have found that milch cows ate them more greedily than other stock, and that in all cases they were better relished by animals which had been kept on old and worn-out pasture, or on hay from similar lands, or which was over ripe. Unless quite green, they are almost always entirely refused by animals in a good sweet spring pasture, and in fresh fall feed, and even some cows will hardly ever eat them at all.

Allow me to suggest to correspondents, who write such articles as "Economy in Use of Root Cutters," if they would sign their names and give their residence in full, it would give more weight to their recommendation, and we should be able to ascertain whether there was any self-interest in the case.

WM. F. BASSETT.  
Ashfield, April 2, 1861.

*For the New England Farmer.*

#### ITEMS FROM MAINE.

**CLEARING LAND OF STONES.**—Your remarks upon this subject, a few weeks ago, Mr. Editor, I have seen verified here upon a moist, loamy, rich soil that lay upon a gravel pan, almost impenetrable by water. There were but a few stones upon the land, but when the loose ones and those that the plow came in contact with were dug out, the soil seemed entirely changed. It was later in the spring, and the grass did not hold out but about half as long as before the stones were removed. Had it been underdrained, I am confident it would have been much improved, and instead of being a week later in seed-time, would have been a week earlier than originally. It is quite an item to gain a week, in Maine, as it is throughout the N. E. States, in the spring.

A very dry soil does not seem to deteriorate so much from the removal of the stones. It is a common practice here where a large stone is taken out, to throw small ones into the bottom of the hole and then plow in the top soil.

Underdraining is not yet tested in this part of the State, yet open or ditch draining has been tried, in a very imperfect manner, and consequently not so great benefit realized as was expected. If the small stones were put into drains, properly, instead of being put in the corners of the fields in large heaps, it would be a permanent improvement to the soil.

There are not a few instances where our well-to-do farmers, after building all the stone wall fences upon their farms that were considered economical, *double up* on one or both sides as wide as necessary to take up the remaining surplus stones; thus, in the end, having a wall eight to ten feet in width upon the land, and their field all the time while doing this, producing poorer crops, even with a more liberal supply of manure, than formerly, simply because it was wet and cold from the natural attractors of heat being so nearly all removed; though, probably, some mineral fertilizers were added by the rains and frosts, and the wear of the stones in cultivation.

It has been reported to me several times of farmers drawing back the small stones to plow in on account of the cold and barren condition of their fields, where they had been removed at quite an expense; because good cultivation and deep manuring did not give the former light, warm and productive seed-bed desirable. But these experiments, or expedients, were resorted to before underdraining was in vogue.

**RURAL ARCHITECTURE.**—The "Cottage-House" design which was given for April, is of some use to the great body of farmers. The suburban plans and designs generally given are of but little use to the majority of farmers, and indirectly at that. These costly and magnificent cottage and villa designs are useful to a few, but they engender a longing for their possession, and foster a spirit of discontent among ruralists, because they see that farming profits will not soon supply them with \$2000 to \$5000 to build them a home with.

A desideratum seems to be to have plans that will admit of being constructed of different kinds of material, and in sections, or additions, and when completed, present a uniform appearance as

though built at one time; admitting of a neat and tasteful finish, or plain, convenient and economical in area and cost.

Young farmers, and many older ones, have to build to live in, when commencing farming, and of a necessity wish to build but what will, by-and-by, be a kitchen and wood-house perhaps, in such form and proportion that it will be worth building well, and then as the means and demand increase, it will be worth enlarging.

To this end the attention of architects is invited, and it is with pleasure that I examine such simple yet tasteful designs and plans as the one referred to above. How cosy, and yet cheap; and how easily a "little more room" could be added. This points in the right direction, and I doubt not Mr. Harney has already received many a silent "I thank ye," from unknown well-wishers.

O. W. TRUE.

*Elm Tree Farm, Maine, May, 1861.*

**REMARKS.**—Our correspondent is informed that the world is not made up only of farmers who live in an isolated condition. We have thousands of readers, who are farmers, but who live around populous villages, and are able to build dwellings worth not only \$2,000 to \$5,000, but such as would cost \$5,000 to \$10,000. It is our desire to furnish suggestions for all, and while he finds something adapted to his own wants or those of his neighbors, he may fairly allow us the exercise of our own judgment in regard to the wants of others.

*For the New England Farmer.*

#### MR. J. W. MANNING'S NURSERY.

Last summer I made a call at Mr. J. W. MANNING'S nursery in Reading, Mass., and I intended soon to have made some remarks upon what I saw there, but sickness prevented. As the spring is near, my visit is brought to mind, and I think I cannot do a better service to the public, than by calling attention to Mr. Manning's nursery, which is highly creditable to his industry and his intelligence. It was planted on new land a few years ago, upon a tract that was singularly barren, and chosen by him on account of its advantageous location. I was surprised to see the results of judicious labor skilfully applied to a soil consisting of an inferior gravelly loam. But the work has been done, and here is a thriving plantation of a large variety of trees, and herbaceous plants in the most healthy and growing condition.

Mr. Manning is now ready to supply customers with almost every thing that is likely to be wanted for a fruit-garden or orchard, and for an ornamental garden, or pleasure-ground; and the public may rely with certainty upon being furnished with the identical variety which is ordered.

In the course of my walk around the nursery, I was particularly pleased with a bed of Cutter's Seedling Strawberries. Mr. Manning showed me a square, planted with six or seven of the most approved varieties of the strawberry, in beds of equal size, and among them Cutter's Seedling. When I was there, all the other sorts had ceased bearing, while the vines of Cutter's Seedling were

still loaded with fruit, of a superior size, and resembling the best wild strawberries in flavor, which was also, in other respects, very excellent. I think that Cutter's Seedling Strawberry is destined to take the same rank among strawberries, as the Baldwin apple among apples. Like the Baldwin apple, it may be excelled by some fancy varieties in some particular quality, but no variety will compare with it in general qualities of standard merit.

Every man who owns a piece of land, ought to have a strawberry bed, which will supply his family with fruit, at a season when all fruit is scarce, and when it is very necessary to the health; and as there is no other variety of the strawberry that remains so long in a bearing condition, or that produces so great an abundance of excellent fruit, as Cutter's Seedling, I hope the public attention will be directed to it, especially in connection with Mr. Manning's nursery.

WILSON FLAGG.

North Cambridge, April 2, 1861.

*For the New England Farmer.*

#### DOGS VERSUS SHEEP.

MR. EDITOR, AND FARMERS OF NEW ENGLAND:—Over one hundred thousand dollars damage done by dogs, in the single State of Ohio, in one year. So says the Report from the State Agricultural Society—and this loss from the destruction of sheep alone, besides the other mischief and trouble done by the race of curs, amounting to about as much more, giving to these a money value. When I read this statement, I could not help thinking it was high time "every dog had his day," and that a short one. I venture to say, that in this country, taking the whole race of dogs together, not one in one thousand, is worth its keeping, for the amount of good it does solely. I have nothing to do now with those feelings of love and attachment we naturally have, to a greater or less extent, for such an animal, after being introduced into the household.

Then, too, the enormous expense which is yearly incurred for the support of such a vast number of almost useless "pups," is frightful to contemplate. I think I could point out some families, where the expense of maintaining their dogs, of no value whatever to them, useless to all intents and purposes, a constant source of annoyance to their neighbors, is sufficient to give them three hundred and fifty pounds of good A 1 pork on Thanksgiving day; and such a case is not rare. In the vast majority of cases, this expense falls upon those who might spend the money to a much better advantage. In fact, there are families in this town, who receive aid from its treasury, that keep from one to three dogs. Is this right or just? I merely ask for information. We live in a free country—*North*. According to a late report, here in this good, old, progressive Commonwealth, the equality of numbers between the dog and sheep is about equal. I have read a statement that the reason of the decline of sheep culture in Massachusetts, and also in some of the other States, is owing to the great number of dogs! In Ohio, and it will do for this section, the question for the farmer to settle is, which shall be given up, dogs or sheep? Now

that the subject of sheep culture is occupying the attention of our farmers to a larger extent than for many years, is it not worth while to investigate this "dog question" a little more? As it now stands, it is dog versus sheep; but if the former, after a fair trial, shall be weighed in the balance, and found wanting, which seems to me will be the verdict of an impartial jury, then let the question be, sheep versus dog.

If this matter is to remain as it is, and has been, for years past, and by the payment of one dollar each, every cur, of whatsoever name, shape, size or description, protected in his life, liberty and pursuit of sheep, in Heaven's name, let there be some provision made, whereby the breed of dogs may be improved, in place of the worthless curs which are now so plentifully maintained, and if the people must have dogs, have one worth keeping; at any rate, let us have the sheep.

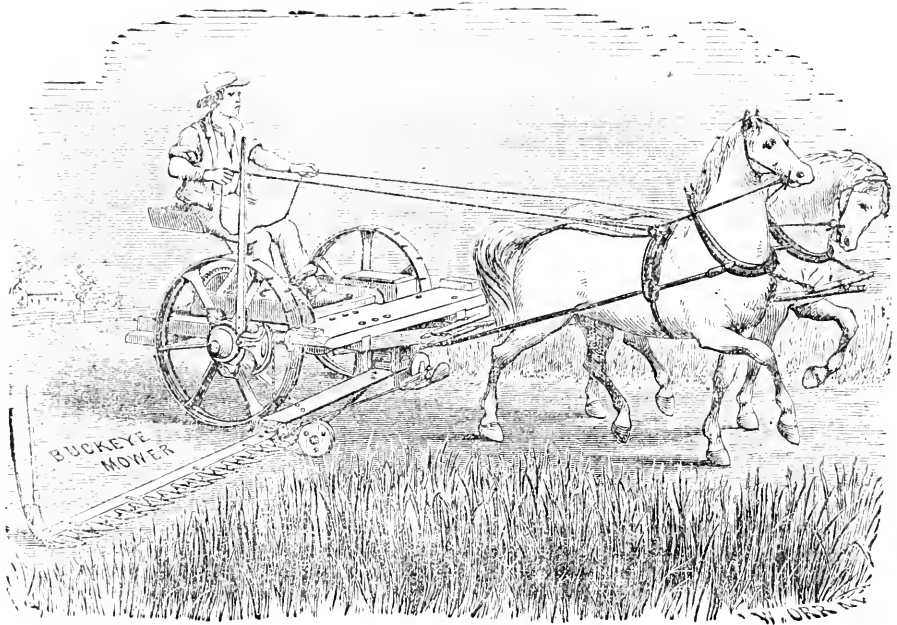
It is a sound maxim of farm economy, that "every cow can carry one sheep," with little or no additional cost; and if every farmer would put this maxim into practice, what a vast amount of wealth would be added to the resources of our country. Farmers, think this matter over a little. As it now stands, it is useless to attempt the keeping of sheep, expecting a profit by so doing; the dogs will eat that up as surely as the attempt is made. There are persons who seem to be afflicted with hypodogativeness; they are not content with one useless "pup," but take all that come, and keep all they can "breed," and never seem more happy than seeing children, as well as those of larger growth, appear glad when at a safe distance from their house, and "night made hideous by yelling curs." The question is a serious one: Is there no way to stop the enormous tax which dogs impose upon the community?

A thing which costs so much to keep it in running order, ought to return a fair equivalent for that cost. Reader, just think this matter over. Do you think our dogs do this? Every man who has a dog which is really valuable, is willing to pay well for its protection. A tax of five dollars for every male, and twenty-five dollars for a female, is none too high, and when this is done, or something equally as effective, we may keep sheep at a profit, and have dogs of some value.

*King Oak Hill, 1861.*

N. Q. T.

DRYING RHUBARB.—Rhubarb dries very well, and when well-prepared, will keep good for an indefinite period. The stalks should be broken off while they are crisp and tender, and cut into pieces about an inch in length. These pieces should then be strung on a thin twine, and hung up to dry. Rhubarb shrinks very much in drying—more so than any plant I am acquainted with, and strongly resembling pieces of soft wood. When wanted for use, it should be soaked in water over night, and the next day simmered over a slow fire. None of its properties appear to be lost in drying, and it is equally as good in winter as any dried fruit. Very few varieties of rhubarb are suitable for drying, as most of them contain too much woody fibre. The best variety of rhubarb for any purpose is the Victoria, when grown in a suitable situation. The Mammoth is worthless, owing to its fibrous nature, as are also some other kinds.—*Prairie Farmer*.



THE BUCKEYE MOWING MACHINE.

Some two years ago we saw this mowing machine in use, and although under quite unfavorable circumstances, thought we could see that it possessed important merits. On the occasion to which we refer, it cut an acre of grass in about forty minutes, and did the work well. The horses which were attached to it at first, had been driven several miles the same morning, which was one of the hottest of the season, and one of them broke down and had to be removed, and another supplied before the acre was half cut. There seemed to be no difficulty with the machine. It was put into heavy clover, where it turned a double swath very handsomely, and as rapidly as any reasonable person could desire.

Learning that one of these machines had been brought into town by our neighbor, GEORGE M. BARRETT, Esq., we went to look at it on Saturday last. Its mechanical execution is certainly of the first order, so that purchasers will not be vexed by its tumbling to pieces by fair usage, while it is made with so much care, and of such good material, as to prevent its breaking, unless by a most unreasonable blow. It is not intended that it shall cut down either granite or wooden gate posts, apple trees, or hassocks over three feet in diameter!

We learn that this machine is still constructed upon the original principles which were first introduced in it, and that very little change has

ever been made in its minor details. The principles claimed for it are:

1. In having two driving wheels, which support the whole weight of the frame, gearing and driver, giving it nearly double the power of a machine which has but one driving wheel. By the use of two driving wheels operating *together* or *independently*, short turns can be made to the right or left, without clogging or stopping the knives.

2. In having *no cog gearing in the driving wheels*. The gearing is permanently arranged near the centre of the frame, at a proper distance from the driving-wheels, and driven by pawls and ratchets, thus avoiding any tendency of being clogged by mud or dirt.

3. By the use of pawls and ratchets two ground-wheels can be used to drive the knives. In backing, the gearing is not put in motion; consequently the knives do not vibrate.

4. It has a *double-hinged finger-bar*, so that on quite uneven ground, the finger or cutting-bar plays *loosely*, and *independent* of any other part of the machine. That is, the knives *follow the surface of the ground*, without being affected by the working of the frame.

5. It has a *folding-bar*. In going to or from the field, a boy twelve years of age can, without removing a bolt or screw, fold the finger-bar over on top of the frame, so that it may be moved miles without loading it upon a wagon.

6. It has a lever attached to the finger-bar and main frame, by which the driver can, with one hand, while on his seat, raise *both ends* of the finger-bar from the ground to the height of 12 to 18 inches.

7. It is said that it has no *side-draft*, and has no weight on the tongue or the horses' necks. By our examination of it, we should think that when mowing there would be no pressure on the necks of the team. There may be a little when the bar is folded, but none amounting to an objection.

8. The last excellent quality which its proprietor claims is, that *it is easily drawn*; that the labor is easier than that of ordinary plowing; being only from 225 to 275 pounds, as demonstrated by numerous Dynamometer tests.

These are the principles claimed, and if they can be substantiated, the machine is a good one. We give them, as we are willing to give the principles of others. We have no personal interest in it, not even knowing the proprietor. In looking for a machine, the purchaser will do well to see this in operation, and then form his own opinion of its merits. The prices of them are, \$120, \$100, and \$85 for one designed for a single horse.

*For the New England Farmer.*

#### SHEEP AND OATS.

MR. EDITOR:—The inquiry in the *Farmer* of March 30, by "N. M.," "Will unground oats hurt sheep?" also, the statement, that the Henniker farmers have lost a number by their use, is truly a new idea. I cannot give the reasons which you ask for, in the affirmative; in fact, I know of none, and furthermore, it would be decidedly in opposition to my idea of oats as feed for sheep, which idea I have gained by conversing with the Vermont feeders and growers, combined with the experience which I have had the past winter, that oats are admirably adapted to sheep. The Vermont feeders of sheep, with whom I have conversed, do not hesitate to say that their experience with different kinds of feed proves that oats will lay on more pounds of fat in a given time than corn. Also, that it is a much safer feed. I have also heard it remarked, that sheep fattened on oats, hold out better weight in market than when fed on corn. We are well aware, fellow farmers, that all kinds of grain should be fed judiciously, and at regular times; the latter to which particular attention should be given, in order to meet with satisfactory results. There seems to be a diversity of opinion in regard to the kind of sheep best adapted to fattening, and the feed best adapted to the sheep. I feel that there has been something overlooked.

1. Do we do our part in dealing out the feed?

2. Have we provided the sheep with a comfortable shelter, that they may not be exposed to the storms of winter?

3. Has the hay been sorted, and the fine, best quality put by itself, and kept strictly for the sheep?

4. Have we done all we could to obtain pure

water. (running water, if possible,) and then kept the troughs thoroughly cleansed?

5. Have we divided them into pens of fifteen or twenty each, taking care to separate the poor ones from the stronger, that the latter may not prevent the poor ones from getting their allowance, and thus prevent the common expression of wonder, why that sheep don't fat, (in fact it has gone down hill all winter,) like that one, and in nine cases out of ten, the sheep is condemned, when the fault is in the shepherd; and finally, let us see that we do our part faithfully, and I think the sheep will, (as the old adage is,) laugh and grow fat.

I am aware, Mr. Editor, that I have wandered a little from the subject, (will oats kill sheep?) but trust you will pardon me this time, as I am much inclined to believe that oats will not kill sheep, but on the contrary, do not hesitate to say that many lives would be saved by their use. The husbandry of sheep is a subject which I hope to see more fully discussed through your paper.

*Hatfield, April 24.*

J. E. W.

#### INCOMBUSTIBLE WASH.

During the hot and dry season, serious accidents sometimes occur in consequence of the highly combustible nature of the materials used for roofing. Pine shingles, after being laid a few years, often become covered with a fine, short moss, which, when dry, is almost as easily ignited as punk, and a spark falling upon the roof, soon envelopes the building in a blaze.

To make a cheap wash for the roofs of buildings, take a sufficient quantity of good stone lime, and slack it carefully in a close box, or mortar bed, to prevent the escape of steam, and after slacking, pass it through a sieve. To every *six quarts of this lime*, add *one quart of rock or Turk's Island salt*, and *one gallon of water*. The mixture should be boiled and skimmed clean. To every five gallons of this, add, by slow degrees, *three-fourths of a pound of potash*, and *four quarts of fine sand*.

Coloring matter may be added. Apply it with a common paint brush. A writer, in speaking of this wash, observes: "It looks better than paint, and is as durable as slate. It will stop small leaks in the roof, prevent the moss from growing over and rotting the wood, and render it incomcombustible from sparks falling on it. When applied to brick work, it renders the bricks utterly impervious to rain or wet, and endures a longer time than any paint I ever used. The expense is a mere trifle; in fact, scarcely deserving of mention."

The walls of out-buildings are frequently coated with this wash, as well as the roofs, and are thereby rendered much more durable. It is said that clapboards put on without planing, if coated with this cement or wash, last much longer than when planed and painted.

For the New England Farmer.

### OIL WELLS.

MECCA, TRUMBULL CO., WESTERN RESERVE, OHIO, }  
February 12, 1861.

MESSRS. EDITORS:—On this my second visit to Mecca, and to the oil wells, I may not neglect to give you some account of this remarkable product of the Western Reserve. Perhaps I alluded to the discovery of this oil in my last communication, but I think I gave you no particulars of its qualities, and of the prospects of obtaining it in any considerable quantities. Having spent a great part of this day in examining the country which is being vexed to give up its treasures, not of gold like California, but that which can be exchanged for gold, and having examined several wells, witnessed the pumping, and the process of separating the oil from the water, let me give you a brief account of what I saw among the movements at this place, once known as Mecca, or Powers' Corners, now christened "*Oildom*."

It is only about one year since the first well was opened, the first drilling commenced at Powers' Corners, a small and unpretending village of a half-dozen dwellings, a single store, inn, and a small meeting-house. It had long been known that the well water about the Corners had a greasy quality, was hard, and had a disagreeable taste; but it did not seem to alarm the inhabitants, or to lead them to suspect that a portion of their daily drink rightfully belonged to their lamps. How much oil the old residents have consumed with their drinking water, can never be known, nor is it of much consequence to inquire. The town has been a healthy one, the oil drank to the contrary, notwithstanding. Still, it must be admitted that the Mecca water will lose none of its nutritive qualities by being separated from the oil. And such a separation seems likely to be made by the enterprise of the men who are pumping night and day.

It was the rumor of the oil wells of Pennsylvania which put our Mecca friends in search of the same source of wealth at their own doors. When I arrived in Mecca for the first time, August 8, 1860, quite a number of wells were at work pumping water, some of them at the rate of sixty barrels per hour. These wells, at that time, were said to yield from one to fifteen barrels per day. There were about one hundred and fifty wells under way in August; some in successful operation, others being partially drilled, and a few abandoned as affording no oil. Each well has an engine for pumping, the cost of which is from \$500 to \$600. This is the chief expense required for commencing operations. The drilling is thus far chiefly performed by hand, and requires but three laborers at one time. Three large vats of pine plank are built, into one of which the water is pumped. An orifice near the bottom of the vat No. 1 allows the water to enter vat No. 2, and in the same manner into vat No. 3. The oil continually rises to the top of the water, sometimes covering the entire surface. It is of the consistency of syrup or thick molasses, and is sometimes bluish, sometimes of a yellow color. It is drawn off by a brass cock inserted near the top of vat No. 1. The water escapes at the bottom into vat No. 2, and the remnant of the oil which escapes with the water rises to the top of the second vat, and is drawn off like the first; so

also into the third and in some cases into the fourth. And after all, more or less oil escapes, and runs off in the ditches, as I saw everywhere by the side of the road. In August, a small, poor boy was pointed out to me who had scooped up two barrels from these ditches. I was sorry to learn on my late visit, that his boyship had got above his business, though others and older ones had taken it up and were doing well.

Some one informed me that the oil as drawn into casks for Cleveland, where it is refined, contains 82 per cent. pure light, 13 per cent. lubricator, 5 per cent., or the remainder, asphaltum. This may not be strictly correct. I will obtain a more accurate analysis, if possible, when I shall again visit the wells of the refinery at Cleveland. A refinery is in operation in the town of Bazetta, some five miles from Mecca, and a small one in the midst of the wells near Powers' Corners was burned to the ground while I was in town. Others will doubtless ere long be erected, as the business must be a profitable one.

On my second visit to Mecca, February 1, I was astonished at the progress of things in oil digging and building. A good deal had been done about Powers' Corners, but the principal improvements were to the south on the road to Warren. For more than two miles the road is lined with houses, most of them small stores, groceries, mechanics' shops and dwelling-houses. Among these are the wells, with their pumps and machinery. Along the road to the east lies the Cowdry farm, which is literally pierced with wells, which are bringing the proprietor great profits. The road to the west is skirted by a wooded tract, but here also are many wells, and the number is daily increasing. The place is crowded with visitors and with strangers who are seeking employment as laborers, or who come to lease or purchase lands. As we rode along the street, I was reminded of Broadway, New York, or of Washington Street of your city, a perfect jam. Lands which, fifteen months ago, would scarcely sell for \$25 per acre, now bring \$500 or more. Most owners of land choose rather to lease than sell, demanding a pretty good bonus, together with a share of the oil obtained. Some of these resident land-owners are making much money by the enterprise, and doubtless some of the owners and leasers of wells are doing a fair business; but not a few of these latter are making small wages. Business, however, in Mecca, has greatly increased. Mechanics, carpenters, blacksmiths and others are flocking into the place. Great is the demand for wood, lumber, brick and stone. Provisions are needed, and are brought along daily. Three daily stages run from Mecca to Warren, ten miles distant, and additional ones will soon be needed. If the oil wells shall hold out, there will be need of a railroad, ere long, to connect the town of Mecca with Warren.

Allow me to remark, in concluding what I have to say on the oil springs or wells of Mecca and vicinity, that while good may come of it, pecuniarily, I much fear that the morals of the whole region will greatly suffer. Intemperance, gambling, and kindred vices, are rapidly increasing, and there is reason to fear that the town of Mecca will purchase her "good fortune," as some of them term the discovery of oil wells, at the price of her good morals. Were I an Ohio farmer, I



should pray that my farm might be at a respectable distance from the oil diggings. The slow but certain gains of farming are to be coveted rather than the supposed rapid ones of mining, whether in mountains of California, at Pike's Peak, or at the diggings of Pennsylvania or Ohio. "Godliness with contentment," the Bible tells us, "is great gain." What a miserable exchange they make, who, with gold, silver or precious stones, receive what will tempt and ruin their sons, and blight the morals of a whole people. The good people of Mecca are making some feeble, as it seems to me, efforts, to oppose the progress of immorality among them, with what success we shall see.

In my next, I will speak of things connected with my travels through the country, and pertaining more particularly to the agricultural interests of different sections of the land.

May you be greatly successful in your labors. With the highest respect, yours fraternally,

J. H. GREEN.

*For the New England Farmer.*

### THE CORN CROP.

MR. BROWN:—I was sorry to learn that your correspondent at Methuen was so unsuccessful in his large outlay for a crop of corn. The failure, I think, must have been in consequence of unsuitable land. I should also think that he failed in being a good financier for a farmer. His expenses on one acre would have been amply sufficient for three acres of the average quality of land in New England, and had he thus have labored for a crop of corn, the balance would have been largely in favor of the corn. In many parts of this State, and in New Hampshire, I have known of a yield of corn, from an acre, of ninety, and in some cases one hundred, and one hundred and ten bushels, with less than one-third the expense of that of the farmer at Methuen.

Such an account as your correspondent has given is quite discouraging to most farmers, who are unable to expend such an amount for the cultivation of one acre, or even for five acres. The average crop of corn on most farms would probably be twenty to thirty bushels to the acre. That would be of course slightly manured, and perhaps a handful of ashes and plaster in each hill. There is much land entirely unsuitable for corn, and it would therefore be extreme folly to make the attempt to raise it; but on suitable ground corn will pay very well with only a moderate outlay, and should by no means be neglected.

Farmers, of late years, in too many cases, have thought it cheaper to buy breadstuffs for the use of the family, and given their attention to other pursuits; this, I think, is a mistake. Let every one endeavor to grow on his farm whatever he may need for home use. There may be exceptions to this rule, but generally, this should be the leading object with every farmer; more especially the present season, every one should obtain all in his power from his farm. E.

*Boston, May 3, 1861.*

REMARKS.—We are glad the letter of our Methuen friend is noticed. We thought it a discouraging letter, but published it in accordance with our rule when the subject needs discussion.

We believe that no other crop in New England, when put on valuable land and properly tended, is more profitable than the raising of Indian corn,—not even the hay crop. We are aware that this is contrary to the common opinion, nevertheless it is our present impression. The corn crop is the glory of our New England crops, and we hope to see it extended, rather than abridged.

*For the New England Farmer.*

### WILD LANDS OF LONG ISLAND.

MR. EDITOR:—Having returned from a visit to the wild lands of North Islip, Long Island, I would like to suggest to your readers a few ideas in regard to the place. Strange and unaccountable as it may appear to many who have no personal knowledge of the central part of Long Island, yet it is a fact, that here are for sale many thousand acres of wild, yet, as I believe, naturally good land, within two hours' ride, by railroad, of New York city, at an average price of about twenty-five dollars per acre.

Here we find a healthy climate, good railroad accommodations, a market unsurpassed, and a soil better than the average of New England. And yet, it has been passed by as unworthy of cultivation. I do not pretend that here is a soil equal to many parts of the West, or that there are no privations or disadvantages to be encountered. But I do believe that they are trifling, and easily overcome, when compared with many parts of the West, and that here is, all things considered, a desirable and valuable field open to emigration.

I am aware that the statements of Dr. Peck, Johnston, Schnebly, Watson, Elliott, and others, conflict with the prevailing opinion of many New England people.

My first favorable impressions of the wild lands of Long Island were on reading an article in the January number of your Monthly. Until then, I had the idea that these lands were nearly worthless for agricultural purposes. But now, after having had a personal examination of the depth and appearance of the soil, and spending a few days on the central part of the Island, I have become satisfied that here is a tract of country that has been overlooked, and sadly neglected, yet fully equal to the recommendations given.

Is it not due to the agricultural interests of New England, as well as New York, that the facts in regard to these wild lands should be known. If here is such a place as has been described, let those know of it, who, instead of going West, will at once "come up and possess the land," and avail themselves of its advantages, and secure its hidden treasures. E. T. RICHARDSON.

*Medway, March, 1861.*

EFFECTS OF CHLOROFORM ON BEES.—The other afternoon, says an exchange paper, Mr. Annan, wishing to have some honey taken from a hive without killing the bees, and having before heard of chloroform being used, felt anxious to try the experiment. He first closed the doorway, and then covered the hive with a cloth, to shut out the light as much as possible, after which he com-

menced to blow chloroform into the hive. When it was discovered that the bees had fallen to sleep, they were easily removed to another hive without harm to any one, and next morning were all awake and in a lively state, humming around their hives, no doubt wondering what had happened. This being a successful and useful experiment in keeping the bees alive, we think it right to make it known for the benefit of others.

#### CONFIDENCE.

There has been no period in our country when the farmer could find more encouragement to prosecute his agricultural labors with success and profit, than the present. The season is propitious, help is plenty at moderate prices, and he can call to his aid an indefinite amount of force in steam-plows, improved machinery for cultivating the crops, hay-making, reaping, threshing and securing the later harvests. Every thing seems favorable for producing an unparalleled amount of that which goes directly to make up the real wealth of a nation—that which will feed, clothe and shelter it, and furnish the means of self-protection, or of active and powerful aggression.

There is now no doubt but that whatever can be produced will be demanded, so that all eyes are turned to the farmer, with an interest never felt before, to see what use he will make of the opportunities presented to him for the promotion of his personal interests, and how far a spirit of patriotism will prompt him to feed and clothe our people while the government calls away large numbers of the producing classes to sustain the constitution and laws of our glorious country.

Every thing promises well. There is no good reason, it seems to us, why our varied mechanical or manufacturing industry should be much interrupted, unless in those instances where the articles made are intended exclusively for a southern market. What we need is *Confidence*—mutual *Confidence*. Let this continue to animate all minds—as it seems to have done so far—and most of our industrial pursuits can safely go on, and the free States be just as prosperous in their material interests as they have been at any time during the last ten years. Indeed, distinguished merchants have declared that it is doubtful whether Southern trade affords any profit to our mercantile people, as the same perverted conscience governs many of the Southern tradesmen in their pecuniary transactions, as it does leading secessionists in political matters. Swindling and repudiation have become so common among them, that many Northern merchants have relinquished trade with them altogether.

If there were any doubt, however, as to continuing our mechanical activity, there can be none whatever in relation to the products of the farmers. These are vital, indispensable, either in a

state of peace or war; but in war are more essential than ever, and in consequence of waste, must be produced in larger quantities than is usual.

There is no cause for alarm, but every reason for encouragement. The evils of the war itself are preferable to the uncertainty and anarchy that has long preceded it. Let us, then, cherish the bond of union in the North, which now binds us as with bands of steel, encourage and animate each other by expressions of an unalterable attachment and love of country, and by a cheerful confidence that we possess the *Power* and the *Will* to sustain, in all their original purity and strength, the Constitution and Laws of the country!

#### HOW I LIVE.

Living friendly, feeling friendly,  
Acting fairly to all men,  
Seeking to do that to others  
They may do to me again;  
Hating no man, scorning no man,  
Wrongs none by word or deed;  
But forbearing, soothing, serving,  
Thus I live—and thus my creed.

Harsh condemning, fierce contending,  
Is of little Christian use;  
One soft word of kindly peace  
Is worth a torrent of abuse;  
Calling things bad, calling men bad,  
Adds but darkness to their night;  
If thou would'st improve thy brother,  
Let thy goodness be his light.

I have felt and known how bitter  
Human coldness makes the world—  
Every bosom round me froze,  
Not an eye with pity peared;  
Still my heart with kindness teeming—  
Glad when other hearts are glad—  
And my eyes a teardrop findeth  
At the sight of others sad.

Ah! be kind—life hath no secret  
For our happiness like this;  
Kindly hearts are seldom sad ones,  
Blessing ever bringeth bliss;  
Lend a helping hand to others—  
Smile though all the world should frown.  
Man is man, we all are brothers,  
Black or white, or red or brown.

Man is man, through all gradation,  
Little recks it where he stands,  
In whatever walk you find him,  
Scattered over many lands;  
Man is man by form and feature,  
Man by voice and virtue too—  
And in all one common nature  
Speaks and bids us to be true.

**SALT FOR CABBAGES.**—Edward Carpenter, a correspondent of the *Pennsylvania Farmer and Gardener*, last year tested the value of salt on cabbages, and with satisfactory results. After planting out his cabbages, he watered them some two or three times a week with salt water, containing about 15 grains of salt to the pint. The cabbages grew beautifully, and headed up very finely; while those which had no salt water given them produced loose, open heads, which were un-

fit for any other purpose than boiling. Rain water was given at the same time, and in the same quantities, as the salt water. He does not know how strong a solution of salt the cabbages would bear without injury, but is fully satisfied that a solution no stronger than that he used is decidedly beneficial.

*For the New England Farmer.*

#### A WOMAN IN AN AGRICULTURAL MEETING.

MESSESS. EDITORS:—Wishing to procure some interesting items for your paper, I ventured to attend a meeting of the Horticultural Society in Washington County, a short time since. I was the only lady present, I am sorry to say, but under the protection of one of its oldest members, I soon felt quite at home, and learned that ladies were always made welcome to these meetings. I was much amused with the discussion upon the best mode of keeping apples; one gentleman of much experience in fruit-growing, and who had been for many years of his life a jolly flat boatman, contended that apples kept best in a moist atmosphere. It was a fact, he said, that the apples packed on the lowest tier in a boat, close to the water, were in good condition, on arriving at New Orleans, while those on the upper tier were imperfect. On the other hand, Mr. Dana, of Belpre, one of the largest fruit-growers of the county, contended that apples on the upper tiers of cellars keep best, and that an equable cool temperature is desirable. He thought that apples might be kept for a long time in a building similar to an ice-house, the temperature low as possible without freezing, and equable.

On one point they all seemed agreed, and the Yankee boys and girls who read the *Farmer* will be delighted to learn it, viz., that apples ought not to be "picked over," but allowed to remain in the barrels, closely headed, until wanted for use. One gentleman remarked that when he was a boy, he was kept picking over apples many hours of the winter, and they had "specked apples" to eat most of the time, but upon his present plan they had good apples to eat, and less rotten fruit to throw away. It was also decided that apples for transportation should be packed over full and pressed down well with the head. It seems that apples on the hill lands and dry uplands keep much longer than those raised in the valleys.

I was surprised to find that the apples which we esteem the best in New England for winter keeping are not much valued here. The Baldwin is considered an inferior apple; the Roxbury Russet grows well, and is large and fair; but the two kinds most highly esteemed are the Romanite and Rome Beauty. The latter keeps better than the Russet.

This region, (Washington Co.,) is a fine fruit-growing region. As early as 1796, Israel Putnam, who lived six miles from Marietta, obtained from the east a one-horse wagon load of scions, and as some of the settlers had seedling trees growing, some valuable fruit was then introduced.

Last week I visited the Fair Grounds of the Licking County Agricultural Society. This society has purchased the ground at Newark containing what is called "The Fort," or the ancient

fortifications. These are the handsomest fair grounds in the State; more than fifteen thousand persons were in this enclosure during the second day of the last fair which was held there.

Yesterday I visited the Fair Grounds of Muskingum County, where the last State Fair was held. They are a mile and a half southwest from Zanesville, and embrace an area of forty-five acres, surrounded by forest clad hills. An elevated mound not far from the entrance commands a fine view.

I find in a report of this fair that John Loughrey raised on one acre 113 bushels of corn, and that Gurdin Perrin raised on one acre 6½ bushels and 16 lbs. of oats. I find also that the first premium for the best seedling grape was awarded to Charles Carpenter, of Kelley's Island for the "Lydia." The reporter says, "we desire to give special praise to the beautiful samples of the Delaware, with Noble, of Columbus, and Campbell, of Delaware.

As my papers have failed to reach me for the last few weeks, I was not aware, Mr. Editor, until informed by your brother editor, Col. Harris, of Columbus, that your correspondent, who with all due meekness was gleaning a few sheaves of information in this broad Western field, should be mistaken for a "speculator in grape vines." Poor little me! In the simplicity of my heart, I thought I had found at last a grape which we could raise in New England without the trouble of covering every fall, and which had so many good properties as to recommend itself highly to those in the cold North who wished to raise a few grapes of their own.

I had one "wee plant" which promised well, and I would gladly share that with any skeptic who is afraid to invest fifty cents for one direct from Delaware.

A "speculator?" Dear me! You know, Mr. Editor, I am a plain little woman, that wouldn't don a bloomer nor deliver a public lecture for one of Longworth's vineyards, nor hardly care for an oil well on the Kanawha, much less turn "speculator."

But I do still believe the Delaware grape no humbug.

A. E. P.

*Zanesville, O., 1861.*

CHOICE OF DAIRY COWS.—One of the Delaware Co. premium dairyman remarks, in the last volume of N. Y. State Transactions, as the result of much experience and observation on this subject, as follows:

"If a man wishes to buy a dairy of cows for beauty, with a handsome red color, nice horns, and of a trim, sprightly appearance, let him go to the Devons. If he wants to get those of large size, good consumers, such as will make the most beef when he has done milking them, let him go to the Durhams and Herefords; but if he wishes to buy a *profitable cow for the dairy*, he will quite as likely find it among the Ayrshires, or among the common stock of the country, as anywhere."

It is the work of a philosopher to be every day subduing his passions and laying aside his prejudices.

*For the New England Farmer.*

### IMPORTANCE OF LITTLE THINGS TO THE FARMER.

The old Scotch proverb that "every little makes a mickle," finds no more apt illustration than is to be found in the results of the farmer who looks out for little things, and the one who does not; the one who takes a stitch in time, and the one who waits for the nine before he begins to do what would have been good economy for him to have attended to long before. All are familiar with the fable of the man who lost his horse by neglecting to secure the shoe, and the lesson therein contained. It is not, however, my intention so much to refer to saving what we already have, as securing, or trying to secure, what we have not. Success, as a general thing, is within the power of all of medium capacity, if that capacity is properly directed. We hear much said about the "unprofitableness of farming," and of how few that are successful in making headway therein. I will not attempt to controvert the assertion, but simply suggest the query whether, all things considered, other occupations are not still more unprofitable.

All I now wish to do is to encourage my brother farmers, and myself, also, to look out for chances to secure better results from our efforts with such means as we have, and can command. For the sake of brevity I put the subject in the form of interrogatories.

Do you make the best possible use of your own time? Do you systematize your operations so as to have no fragments wasted? If you employ laborers, is it your constant aim to turn such labor to the very best account? Are you sure you do not often send two men to do a job of work that might be more economically done by one? How many times, in the course of a year, do you and your men take two steps, when one would have been sufficient, had proper foresight been used? To give significance to this question, I will refer to an incident related to me by the editor of the *Farmer*, who needs not my endorsement of being good authority. He had a man, part of whose duty it was to feed the pigs. Quite often, on going from the house to the barn where the pigs were kept, he would forget the swill and have to return for it, involving an expenditure of time not to be overlooked by his employer, the aforesaid editor. Like a wise man, (as we all know him to be,) he tried various arguments to impress his man with the loss both were sustaining, without curing him of his folly. As a last resort, he made an estimate, based upon the man's admissions, of the number of extra trips made for the swill during a year that might have been avoided, the time required, and its value ascertained according to the wages paid the man. The result was quite startling to the man, and led to new resolves to do better for the future. Shall we not look around us and see if we cannot find losses of like kind on our premises? How is it with us in the saving and use of our manures? As to saving manure and avoiding waste, is there nothing more we can do? Ammonia is a volatile, flighty thing, and will surely take itself off unless well looked after, and secured by fixtures more reliable than the green withes of the Philistines on Sampson's arms. Most farms have a

variety of soils, some portions requiring different treatment from other parts of the same farm. Have we reviewed our practice, year after year, in order to avoid any mistakes we may have made, and improve upon successes achieved? Space will not permit going into the details one by one of all our farm management. A thorough examination of all that relates to farm operations should often pass in review, and be subjected to the closest scrutiny, to see if we cannot improve upon the past, and thus gain vantage ground for still greater improvement in the future.

Now is the time to arrange our plans for the spring and summer work. Each spot or lot should be designated for its particular use, and what we can, or rather what we should do, for each to secure the greatest ultimate profit, which term I use because we may often sacrifice the future for a present result which would be unmixed evil in the end. These hints are hastily thrown together; if they lead to thought on the matters referred to, the writer's object is attained.

*Rochester, Feb. 20, 1861.*

O. K.

*For the New England Farmer.*

### SCIENTIFIC AND MORAL VIEW OF FARMING.

Every person who has arrived at years of discretion should select for his or her calling the business to which their minds seem most inclined, provided that business is such as will tend to promote the public welfare.

Man was not born merely to eat, drink, sleep and enjoy the animal part of existence; but to be industrious and useful in society; and ought to leave some record of his actions as a testimonial of his endeavors to be useful to the present and future generations.

Of all the pursuits that men have followed, through choice or necessity, agriculture stands foremost; it is, when properly conducted, the most useful, profitable, pleasing, rational and healthful of all.

The productions of the soil do more than just satisfy the cravings of hunger, and build up and replace what has been lost by the change that is constantly going on in the human system. They furnish not only the sinews, the blood and the bones of the hardy laborer, but they supply the brain of the statesman and scholar, and give fuel to the lamp of genius, in the poet and artist. They spread out for our acceptance an endless catalogue of instructive themes for study and contemplation.

The practice of agriculture requires precept and study. It cannot be benefited by theory alone, but when theory is united with repeated experiments and facts, it may be reduced to a regular system. Experiment can do but little good when extended no further than for our own private use and instructions. If one finds, after experimenting, that facts which are likely to benefit himself, have grown out of those experiments, it is a duty he owes the world, to make the theory and the facts public.

Because a man is a farmer, it need not come as a necessity, that he is not one of the wisest in the land. In fact, to farm well requires wisdom, for every year the farmer virtually undertakes to

solve, practically, the most difficult and mysterious problems that the human mind can perform in the physical sciences; and yet some may ask if this demand upon his capacity be made, with what is he paid? and I answer, with the highest, the truest, the best of all earthly blessings—health to the body, satisfaction to the feelings, and occupation to the mind. And to these present boons there is added another, less obvious and tangible, but singularly and beneficently adapted to the imperfections of man's earthly state; viz.: an interesting and alluring anticipation of the future, which hiding the gray hairs, masking the deepened wrinkles, and soothing the recent woe, gently leads him on from year to year, till the allotted space is already past, the goal imperceptibly won, and the earth, which his mind has studied and his strength has tilled, receives him in her gentle bosom, and while he sleeps in peace, "the good that he has done lives after him."

JOHN CALVIN GITCHELL.

*Boscawen, N. H., 1861.*

*For the New England Farmer.*

#### RETROSPECTIVE NOTES.

CALENDAR FOR MAY—SPARE THE BIRDS.—Having been very much delighted with the plea in behalf of sparing the birds, and with the proofs of their usefulness, which are contained in this opening article of both weekly and monthly issues of the *Farmer* for May, and being desirous that every effort made for the dissemination of the truth upon this subject, and for discouraging the cruel, disgraceful practices of shooting birds, and robbing their nests, should be as effective as possible, it occurred to me that, if the pages of the *N. E. Farmer* for the current year should furnish for the boys an article as likely to influence them, as the article under notice is likely to influence adults, then this paper would have contributed, for one year and volume at least, its fair proportion of effort for the above-named objects, to which every respectable agricultural journal should make, at least, one contribution, in the course of every year or volume of its existence. As the boys, and the men who are no better than grown up boys, are the chief actors in the cruel, shameful practices referred to, there ought to be every year, or in every volume of our agricultural journals, one article, at least, adapted to interest and influence them, and appealing to their heads and hearts, in behalf of sparing the birds, as powerfully as the editorial now under notice seems well calculated to do in the case of adults, and the more considerate portion of the young.

I have been led to place this high estimate on stories, songs, or other articles more especially adapted to attract the attention or interest the feelings of boys, in consequence of having been made acquainted with the fact that the singing of a song called "The Farmers' Best Friends," which was printed in the *Genesee Farmer*, during 1859, seemed to one who takes a deep interest in the rising generation to have very certainly exerted quite an influence on the singer himself, and on a squad of boys with whom he used to associate. They left off, at all events, both last year and this spring so far, the two practices which are so

common with many boys, namely, the shooting of birds and the robbing of their nests. Having good assurance that this particular song has had so happy an influence on one squad of thoughtless, if not positively cruel and mischievous boys, I have been induced to copy it for use in your columns, from the very natural and confident hope that what has done good in *one* instance may do a like good in a *great many* other instances. Some of your subscribers can persuade good singers to commit it to memory, and can get it sung on suitable occasions; and wherever there is any goodness in the heart-soil upon which such seed is scattered, surely there must be a harvest of more or less value. Here, then, is the poem, copied, as I have said, from the *Genesee Farmer* for 1859:

#### The Farmers' Best Friends.

BY A. HOLLOWAY, MT. BRIDGES, C. W.

Destroy not the birds;  
They're the farmers' best friends;  
For the little they spoil  
They make ample amends.

Some fruit they will eat;  
But grudge it them not;  
For the good that they do  
Should not be forgot.

They keep down the insects,  
Whose rapid increase  
Would injure our harvests,  
Till harvests would cease.

With their songs they amuse  
Our wearisome hours,  
And their presence enlivens  
The shadiest bowers.

Then forgive their slight faults;  
They make ample amends;—  
And do not forget  
They're the farmers' best friends.

#### FARMING OPERATIONS MADE PROFITABLE.—

Under this heading we have in the *Farmer* (Monthly,) for May, two very interesting and instructive communications from the pen of Mr. Holbrook, in reply to certain inquiries by one who has always had a fondness for farming, but who in early life had turned to other pursuits, and had thus become rusty, and to a great degree, incapacitated for his favorite occupation, farming, which he has now resumed. The matters about which this inquirer has sought information and aid are, many of them, just such as hundreds of the cultivators of the soil are in need of information about, whether they may feel that need or not; and Mr. Holbrook's replies are so instructive, and so abundant in *practical* details, that almost every farmer may derive some useful hints and guidance therefrom, and more particularly as to the management of muck and manure, and the adaptation of different kinds of plowing to different conditions of the soil, to different wants or purposes of the farmer, and to other circumstances.

These communications of Mr. Holbrook have recalled to memory quite frequently and freshly some of the many similar communications which have been drawn out by similar inquiries from the rich treasures of the judicious and experienced John Johnston, of New York, and which have been given to the agricultural brotherhood, for the benefit of others as well as of the individual inquirers, through the columns of the *Country Gentleman*, and a few other agricultural papers. And

in connection with the pretty widely known excellence and utility of such advice, information and instruction as have been drawn forth, in the form of replies to inquiries, from the rich stores of agricultural wisdom and experience of the two eminent farmers above named, as well as of a few others, it has occurred to me that the pages of our agricultural journals might be augmented in interest and practical utility by similar communications and answers to inquiries by the more experienced and judicious of our brotherhood, more than by almost any other description of communications usually sent to these journals. Though there may be very few who are now-a-days employed as Consulting Agriculturists—that business having been brought into disrepute by certain self-conceited and greedy pretenders or professors—still there are in many neighborhoods men whose advice is sought and valued, and who might benefit the public by statements of the cases submitted to them, and of the advice given by them.

MORE ANON.

*For the New England Farmer.*

#### POOR, NEARLY EXTIRPATED CROW.

MR. EDITOR:—In reading your opening article in the May number of the *Farmer*, I noticed a quotation from Audubon, in which allusion is made to the “poor, nearly extirpated crow.”

Whether the birds in question are decreasing in other sections or not, I cannot say; but, if the great ornithologist had ever visited this district, we could have shown him crows, “sleek, corn-fed crows,” in such numbers as would have sent him on his way rejoicing.

On the fifteenth of last month, I sowed four acres of wheat on a remote corner of the farm; and the crows commenced picking it up, while we were harrowing it in. From that day until it was too large for them to pull, there were from fifty to one hundred of them in the field every day; and from the appearance which the crop now presents, I verily believe they have appropriated one kernel out of five of the seed sown. I endeavored to check their depredations by putting up scare-crows, but it does not seem to do any good—they would actually place their sentinels on the hats of my “beggar men”—there to watch while the rest were at work. I also shot several and hung them in the field, but I could not see as that diminished their number or mended their ways. Finally, such was my ingratitude for the valuable service they were rendering me, that I soaked several quarts of corn in strychnine, and strewed it on the field, hoping to poison some of the inoffensive (?) creatures. Whether it had the desired effect or not, I never knew, but they did not continue their ravages long afterward.

You may think this is an extraordinary case. I will own that I never saw them so thick, nor so persistent at this season of the year before, but their nature is ever the same. I do not deny that they must destroy a vast quantity of insects, but do they destroy them in such quantities as to compensate the farmer for the black mail which they yearly levy on his grain? With that inquiry in my mind, I once examined the crops of two which I had killed; in the first I found seven kernels of grain, one grub, and a small bug; in

the second I found the seven kernels of grain, minus the grub and the bug.

Concerning those other birds you mention, I take no exceptions. I love—I almost reverence those beautiful, confiding creatures which come with the warm breezes of spring, to build their nests and rear their young on those very trees which shadow our windows. The brave and hardy little chickadee, the bluebird, the blackbird and robin, all possess my unqualified esteem. But the crow, with his dissonant tones and ghoullike propensities, always seemed like the harbinger of discontent.

I don't wish to judge harshly, nor unadvisedly, but it does seem as if the bird in question exacts a heavy reward for its services in destroying insects—it seems as if the trouble and vexation they cause, and the real damage they do in plucking seed from the soil, must require an unlimited destruction of insects, in order to strike a balance in their favor. Such are my convictions.

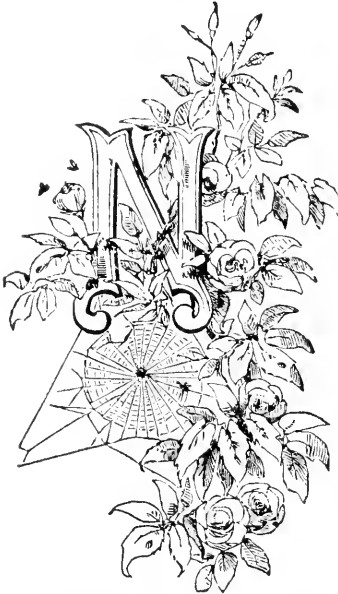
*Bristol, Vt., 1861.*

FRANKLIN HARVEY.

REMARKS.—There is no accounting for tastes. We like the caw, caw, of the crow, especially in the winter. Twenty-four hours before sowing wheat, or any other grain, put one gill of clean tar to it, then pour on hot water and stir thoroughly. In a few minutes each kernel will be so coated with tar that after tasting one or two, a crow will desire no more. This will also keep squirrels and mice from depreeding on the grain, while the soaking will bring it up more readily. After turning off the water from the grain, roll it in plaster, ashes or fine loam, so that it may be handled pleasantly.

AMONG THE PEAR TREES.—On our way to the city, this morning, we called at the grounds of O. MORSE, Esq., of Cambridge, to look at his pear trees. Including trees of all ages and sizes, we found several thousands. They all appeared to be healthy. As they advance, Mr. Morse heads them in, giving them a compact and symmetrical form, so far as the peculiar habit of each will permit it; when this is accomplished, which is usually by the time the tree is six or seven years old, he leaves them to their own tendencies. Among the trees was a Seckel, perhaps eight or nine years old, which was well worth some travel to see. Most persons are deterred from setting pear trees because they have the impression that they must wait a dozen or more years before they can receive any fruit. If they will look at Mr. Morse's trees, they will find scores among them only five or six years since they were set, but now in full blossom, some of them having borne fruit last year. This shows what may be done under judicious cultivation, and is encouraging. There is a fair blossom on the trees, and the prospect of a good growth of fruit. Mr. Morse understands the culture of this favorite fruit, and by-and-by will have some fine trees for sale.

## ASHES FOR CABBAGES.



o manure that can be applied to the cabbage is more salutary in its effects than wood ashes. The worm which so frequently and fatally infests the roots of this vegetable, is often expelled by liberal and repeated applications of this article. If common salt be mixed with it—say four

quarts of salt to one bushel of ashes—and a small quantity of urine or wash from the barn-yard, be sprinkled frequently over and around the plants, the growth of the crop will be greatly promoted by it.

The cabbage is a most excellent product, but many find it difficult to cultivate, as often losing a crop as gaining one. On new, strong lands, or lands which have been depastured many years, it generally succeeds, and makes a much better crop than on old lands, even with the aid of the best manure.

Cabbages require frequent hoeing. The operation should be performed either in the morning or evening, and if the plants are infested with vermin, sprinkle the leaves with ashes while the dew is on them; if there is no dew, sprinkle them with diluted urine or weak soapsuds. This will cause the ashes to adhere to the leaves, and furnish some protection, at least, against all attacks. The heads may remain out till snow falls, and the small, imperfectly developed ones either fed to cattle, or, if more valuable for the market, set out in moist earth, so far apart as not to touch each other. What are wanted for family use may be very perfectly kept by cutting off the stump and most of the large, outside leaves, and packing them in barrels, or large boxes, a cart body, or anything of the kind, with straw cut with a hay-cutter or hatchet. Place a layer of straw on the bottom, and sprinkle it with clean water, then the cabbages, close together, and so on, alternately, until the vessel is full. We have kept them in this manner, in perfect condition, until the middle of May.

The field cultivation of this vegetable excites attention near large cities, and favorable reports have been given in regard to the profit of the crop. The cabbage makes an excellent food for domestic animals, and the quantity which may be grown per acre is really astonishing. Some care must be observed, however, in feeding them to milch cows; as a full feed of them is apt to flavor the milk.

*For the New England Farmer.*

## ABOUT MOWING MACHINES.

MR. EDITOR:—I saw in a recent *Farmer*, a cut of "Wood's Mowing Machine," and last week I saw a similar one of the "Buckeye." I think on perfectly smooth ground they may do well, but, for most of our New England farms, they are not equal to the Manny machine. There is not strength enough in the cutting-bar for practical purposes. What if you should strike that three-foot hassock, or a stump of less dimensions, why the cutting-bar would be as crooked as a ram's horn (if it could be possible,) in a moment.

They had a trial of mowing machines last year, at Exeter, where they used the Wood and Buckeye machines. The Wood machine did good service till it got dulled up so that the horse could not draw it. One great trouble is, that the cutting-bar does not cut the grass all of a height. You use one, and the spring of the bar prevents the outer end from rising, so that it cuts one side of the swath from one to two inches higher than the other. The Buckeye is at fault in the same way. I will guarantee that you may run into stumps and rocks as hard as you are a mind to, and you cannot injure it by bending the cutting-bar, though there is no necessity of it when you see them. We want a machine that stands such accidents; you may break a finger, which is but a trifling expense. One of my neighbors used one last season in a meadow, and he had two powerful horses, and stuck fast against a hassock, so that it took the horses and two men to back it out, and not a bolt nor a joint was started. Where would the Wood and Buckeye have been in such a case? Another advantage of the Manny is, that a reaper can be attached, so as to cut all kinds of grass in the best manner, and another is, you can cut your grass all of a height, from one to twelve inches. I know that there is an advantage in the cutting-bar, in relation to folding it up on to the machine, and in turning to the left as well as to the right, but those are not to be compared with the other advantages of the Manny. The reel is a good thing, especially when you are going with the wind or quartering to it. I cut a piece of wild grass last year with a strong wind, and did it better than it ever was done by hand. The reel knocks the grass back, so that it is not cut off but once, whereas the other machines cut it off twice sometimes, by the grass settling down before the machine passes along. I told the man that got stuck in the hassock, that if he would mow that piece a few times, he would have a smooth meadow, by the look of the hassock heads lying about. I am in no way interested in mowing machines, only that I hope my brother farmers, in laying out \$100 or more,

will get a machine that will not cause them to regret that they had not bought some other kind.

In reading Mr. Holbrook's communication in reply to some questions about grass lands, where he speaks of Fowl Meadow grass, it brought to my remembrance an incident. Some 15 years ago, I had reaped some Fowl Meadow grass, and saved the seed, and I asked a trader in Exeter, if he wanted some Fowl Meadow seed, and he replied by saying, "What, Fowl Weather seed? O, no, don't want any." I felt so amused at his mistake, that I did not stop to inform him that he misunderstood me.

Grass looks well. We are having a nice rain, (June 3.) There is quite a blow of apples; more than in 1859. While our beloved country is threatened by rebels, and traitors, with dissolution, it is very important that the husbandman should not slack his hand, but remember that the foundation of any country's prosperity is based mainly on its agriculture. For we read in Proverbs, 28, 19, "He that tilleth his land shall have plenty of bread, but he that followeth after vain persons, shall have poverty enough." N. SHAW.

*Orchard Hill, Kensington, N. H., June, 1861.*

*For the New England Farmer.*

#### DOGS AND POVERTY.

MR. EDITOR:—I noticed an article in your paper of the 25th, which very much attracted my attention, and I wish it might attract the attention of every family in New England, especially those who keep a dog. Perhaps I might become as much attached to a dog as many others, if I were to indulge in keeping the unprofitable and useless animal, but I am glad that, as yet, I have no desire to keep one. The gentleman who wrote the piece I refer to, more than intimates that we can not keep both dogs and sheep, and I would, with him, ask which of the two shall we keep? He also says that, if dogs must be kept, let there be an improvement in the breed, and have a dog that is worth keeping. Now I very much doubt whether a dog of any kind would be worth keeping to thousands that keep them. What profit or use, I ask, is a dog of any kind, to men living in the city, that have to work at day labor to support a family? It may be well enough for shop or store-keepers to have a dog to give the alarm at the approach of the thief, but to most who keep them, they are altogether useless. I know of men who have pastures more adapted to the keeping of sheep than they are for cows, and I have said to them, why not keep sheep, and less cows, and they all say, because of the dogs, which, if they do not kill the sheep, frighten them so that we could not keep them in our inclosures. I hope men will continue to talk upon this subject until people get their eyes open. When I hear men talking about the profit of keeping dogs, I often think of the poor man who applied to the authorities of the town for help. As the Selectmen went to the house to examine the circumstances of the poor man, they found there a large dog. Why, said they to the man, if you are so poor as to need assistance from us, why do you keep the dog? You might as well keep a hog, and that would be of some use to you. But, replied the man, he is a valuable dog; I think I could get at

least \$50 for him. Well, said they, sell your dog, and then if you need help, we will help you. A few days after, the poor man went to them, and told them that he had sold his dog and now wanted assistance. How much, they asked, did you get for your dog? \$50, was the reply. Very well, if you have \$50, you do not need help from us. But, said the poor man, I did not sell for cash; I took an old slut at \$20, and three pups at \$10 each.

BARNES PUTNAM.

*Nashua, May 28, 1861.*

#### HOW I TREAT MY TURKEYS.

It may be interesting to some novice in turkey raising, to know my experience in that line. Two years ago this spring, a neighbor sent me a present of eight turkey eggs, and as I had never raised any before, I looked upon the undertaking as gigantic. However, I gave them over to the care of a common hen, and resolved to find out something about the proper method of rearing them from some book or agricultural paper. In due time six turkeys made their appearance, and I commenced my practice at all hazards. I made a small coop with a tight roof, and in this I confined them nights and rainy days until they were half grown. In fine weather they had the range of a clover field, where they found a plentiful supply of bugs, and I fed them three times a day until four weeks old with corn dough mixed with water, adding to the dough, rainy days, a small sprinkle of black pepper. I also chopped up fine all the onion tops, which they ate greedily. I kept a pair over winter, and through the summer the hen laid 36 eggs, at three different times—from these, part having been broken, I reared 18 fine large turkeys, with the same treatment as above. Last winter I killed and sold all but five hens and two gobblers. I have already collected about 50 eggs, have 40 set, and hope to raise 100 turkeys this season. My turkeys are a very common kind, some entirely white, some quite dark.

*Recapitulation.*—To insure success in turkey raising, they must be kept perfectly dry while young, have access to plenty of bugs in fine weather, plenty of onion tops, and a little pepper in their feed in damp chilly weather.—*Country Gentleman.*

FERTILIZING VALUE OF MARLS.—The substances which determine the fertilizing value of Marls are exactly the same which affect the agricultural value of limestones. Their value for agricultural purposes may be briefly stated as depending,—

1. On the power of swelling and falling to a fine powder when slaked with water after burning.
2. On the quantity of carbonate of lime and magnesia contained in the different specimens.
3. On the quantities of silicious matters which are present in most kinds of limestones.
4. On the proportion of phosphate of lime present in variable quantities in different specimens of limestones.
5. On the proportion of alkaline salts, which most limestones contain in variable quantities.
6. On the proportion of gypsum which is found in some limestones.



*For the New England Farmer.*

### THE FARMER AND MECHANIC.

MR. EDITOR:—I am not a farmer, nor a son of a farmer. Being a son of a farmer is no indication that the son will be a farmer; for farmers' sons are not the materials of which farmers are made; or, in other words, farmers' sons, generally speaking, do not make farmers. I can think of but six men of my own age and acquaintance, who have chosen the farmer's profession.

Reading the "Thoughts and Queries" by "G. F. T.," in the *Farmer* of January 26, led me to pen these lines. He says the contributions of the young men of the country, elicited by your request for them, may contain *original* ideas, but at the same time, absurd and useless ones. In his article, I think, are statements, questions and ideas to which these same objections will apply.

He says the sources from which farmers' sons usually obtain information of current events, are the *Farmer's Almanac* and local newspapers. Now that is too bad. Do not the *New England Farmer*, *New York Tribune* and *Boston Cultivator*—and these are not local newspapers—circulate freely in the country, not naming scores of other papers? Are not farmers' clubs and agricultural societies organized in every county in New England? Do not the correspondence between friends and relatives, the meetings of neighbors, visits to the village store and post-office, &c., furnish opportunities for news-telling, and news-hearing? Why! does not every farmer's son of fifteen years talk more of secession than his father? Farmers' sons and the rest of mankind "know every thing now-a-days;" means of communication and facilities for obtaining information on all subjects are unlimited. It is one turn of the screw too much for "G. F. T." to speak of his means of learning, &c., as limited, when all can see from his own writings, that he is well posted, that he reads agricultural papers, hears addresses on the subject, attends cattle-shows, and knows as well as any one, that they are nothing *but* "show."

He asks, "Do not farmers receive proportionately less pecuniary reward for their labor?" I answer, no. I have heard mechanics remark, and I know by my own experience, that we mechanics could not get a living, if we did not work harder and more hours in a year, than farmers do. "G. F. T." winds up by saying that happiness is the most desirable possession, and that contentment is happiness. Well, that is true. But why farmers' sons should manifest so much discontent and dislike to farming, is more than I can see. It seems that they will do any thing, or rather nothing, rather than farm. Farming, like every thing else, is a very different affair from what it was twenty-five years ago. Labor, as such, certainly is not elevating or ennobling. The ox may labor his life-time, and still be an ox. The unlearned Irishman and American slave labor and dig during their life-times, and are no higher, intellectually, or otherwise. The labor performed by the farmer fifty or even twenty-five years ago, did not much more for him; he labored from dire necessity. Now, labor is performed with pleasure, though the laborer is no less dependent on his work for his daily bread than in former years. The operations of the ma-

chines and implements of the present day, please the operator.

Who wonders that Daniel Webster liked the "hang" of his scythe better in the apple tree than in his hand? I don't suppose it *did* hang at all well. Who does not love to use the bright, elastic steel plate hoes, shovels and forks? Just compare these with the ancient tools of like kind, which weighed half as much as what was lifted with them. Mark the handsome and scientifically made plow, the team that draws it, and the satisfied look of the plowman as he sights the straight lines across the field, and those lines may be straighter for his having studied "geometry." A man will dig rocks no less advantageously for having studied "mechanics." A farmer who has a decided mechanical turn, will be a better farmer than one who has not. A farmer who studies and takes close observation of everything which comes in his way, makes the best farmer. Finally, all that is beautiful and pleasing in nature and art, most of the means and opportunities for intellectual and moral culture, can, and should be, and I believe are, enjoyed by the farmer more fully than by men of any other calling whatever.

Marlow, N. H., 1861.

A MECHANIC.

*For the New England Farmer.*

### GOOD FARMING REQUIRES THOUGHT AND SYSTEM.

Farming, in its broadest sense, is a trade, and a trade that requires as much experience and observation as any other employment of man. The longer a man tills the soil, the more he will see the necessity of experience in order to succeed in his calling. Some men think they can take up farming at any time and succeed, but a man might as well take up any other profession and expect to succeed, after having spent the first half of his life in other employments. It will not pay to farm, unless we farm it well; unless we lay out for good crops, good cattle, good horses; that is, in order to prosper we should endeavor to raise the best of everything of its kind. It costs just about as much to raise a poor crop or a poor animal, as a good one, and I think the true way to manage land, is very much as we would manage our oxen, or horses, or hired men, in order to get the largest avails from their labor. Feed and tend them well. Just so with the land; keep it fat, and we can raise a good crop of some kind every year, and leave the land fat.

There is a great want of system, of calculation, of thought, among us. Every man needs to study his own land to know what course to pursue. We have a disposition to spread over too many acres. People are very apt to say that such a piece of land is worth one hundred dollars because it will pay the interest of that sum. But a farmer ought not to be satisfied with six per cent. on his investment; he had better sell and till the remainder so as to realize at least from fifteen to twenty or thirty per cent. How will a man live and ever pay for his land if he only gets six per cent.?

In tilling the land we must be governed very much by circumstances, as no one rule will apply to all kinds of soil. The great point is to keep the land in a high state of cultivation. I have a piece of interval land, which I plow for corn twice

in a furrow, from twelve to fifteen inches deep, not below the soil. The advantages are, I choke all the grass so that it does not trouble me; it tills so much easier that it operates in two ways; if the season is dry, the roots will run down and find the moisture, and if there is an excess of water, it will settle down below the roots, thus acting beneficially either way. It would not answer to plow thus deep in a soil that has a tenacious subsoil within six or eight inches of the surface, but might do to go an inch or two at a time into the subsoil.

Some persons say that sandy, porous land leeches. I do not believe in that doctrine. I believe in consequence of the land being porous the heat penetrates, and decomposition and evaporation is much more active, and thus the strength of the manure is much sooner spent than in soil of a more tenacious formation; in other words, it leaches up and not down!

Allow me to say to your correspondent asking what he shall do to improve a cold, miry piece of meadow, that I would recommend to spread in the spring twenty loads of manure per acre, and sow on six or eight quarts of timothy; harrow six times with a sharp harrow, any way to make it look dirty, and I will warrant a good crop of grass the second year if he does not get it the first.

S. BYINGTON.

*For the New England Farmer.*

#### NEW DISEASE AMONG LAMBS.

MR. EDITOR:—For the benefit of your readers who may profit by my experience, especially as it is dear bought, I describe a disease which has affected my lambs for three successive years; causing a loss of not less than 30 and as high as 50 per cent.

The symptoms are swelled throat, snuffing at the nose, and laboring hard to breathe. They live from one to forty-eight hours, when they exhaust themselves in laboring so hard to breathe through their swelled throats. They are generally large and fat and otherwise well developed.

Now for the cause: It cannot be in the ewes, for last year I made an addition to my flock from that of a neighbor who never lost a lamb from this disease.

It cannot be in the ram, for last year I used a South Down, whose lambs, have, with a neighbor, proved free from this disease.

It cannot be in the mode of feeding, for an acquaintance feeds in the same way with desirable success; being two feeds of hay and one feed of unthrashed oats, equal in bulk to a feed per day.

The cause I believe to be in the sheep-stable; it being the basement of a barn set in a side-hill, three sides of wall, with front boarded up with door and window constantly open for going in and out of the sheep at will, and for ventilation, the air being too close and confined for sheep. The breathing over and over of this close and impure air by the ewe, causes an irritation or affection of the throat, which is imparted by a law of transmission from the ewe to the lamb during gestation.

From my past experience, I believe that sheep should be kept in dry, open sheds; as basement stables are too damp and close, besides keeping too many in one stable and yard. Twenty-five

coarse-wooled sheep in one stable and yard are said to be equal to fifty fine-wooled sheep in consumption of air. I hope by removing the boards from the front side of the sheep-pen, together with a thorough cleaning, whitewashing and sprinkling with lime, and by keeping a less number in the same stable, to avoid the disease. Those lambs which escaped the disease are looking finely; showing the advantage of good feed over the old method of confining sheep on hay alone. I would prefer, however, the feeding of roots to breeding ewes instead of grain.

GEORGE BACHELDER.

*Stanstead, C. E., May 18, 1861.*

*For the New England Farmer.*

#### A CROP OF EIGHT-ROWED CORN.

MR. EDITOR:—A writer in your last monthly recommends twelve-rowed corn to plant in preference to eight-rowed.

Let me state my experience in eight-rowed corn. I plant my corn  $3\frac{1}{2}$  feet apart, both ways, which makes 4000 hills to an acre. I harvested last fall, from the stoutest part of my corn 144 hills which yielded  $4\frac{1}{2}$  bushels sound corn, or 32 hills to a bushel. Now, divide 4000 by 32, and we shall get 125 bushels of corn to the acre. Seventy-five ears filled a bushel basket. Some of the ears were fourteen inches long, and were exhibited at the Boston Corn Exchange by my friend Hastings, from East Cambridge. My ground was manured with only ten cart loads of manure to the acre and twenty bushels of ashes. The ground was kept mellow by passing the cultivator both ways through it seven times. The ground was mowed last year and the manure turned under.

The way to get large crops of corn is to plant long ears, and keep the ground all the time mellow. Four hills of such corn make a bundle large enough to handle conveniently. My large ears and large stalks don't come from and exhaust the land, as many suppose, but from the atmosphere, in the form of carbon, hydrogen, &c.

This can be shown by drying the stalks and burning them, as decomposition takes place and carburetted hydrogen gas is set at liberty in the form of blaze.

Farmers should let the King Philip, the Dutton and the pop corn alone. Of these kinds we have to husk from two to three hundred ears for a basketfull.

E. MORSE.

*Walpole, N. H., 1861.*

A NEW WINDMILL.—Mr. N. F. MATHEWSON, of Providence, R. I., has shown us a model of a windmill he has invented, which seems to us more simple and perfect than any we have before seen. From his account of one he has in use, and from an examination of the model, we think this must be an exceedingly valuable motive power. It is so constructed as to be completely under the control of the operator, and may be easily checked or entirely stopped in a moment, even in a gale of wind. The model may be seen at our office for a few days.

*For the New England Farmer.*

## PRINCIPLES OF BREEDING.

BY JUDGE FRENCH.

We have been much interested in the perusal of a book of about 160 pages on this subject, from the pen of the accomplished Secretary of the Maine Board of Agriculture, Mr. S. L. Goodale. In the reproduction of animals, as in all other matters where the LIFE PRINCIPLE is involved, there are mysteries beyond human comprehension. That we do not gather grapes of thorns or figs of thistles, we very well know, but *why* a thorn may not produce grapes as well as a grapevine, we cannot even guess. The naturalists may examine it under his microscope, and the chemist may analyze it in his laboratory, and neither can find in the structure of the root or branch, or in the elements composing them, the reason why the grape does not grow upon the thorn. But the fact we know, that nature is constant in her laws of production, *like producing like*, as to the genus or general family. But this constancy of Nature which prevents confusion and the production of monsters, and preserves a beautiful harmony throughout her realms, is no rigid iron mold which shapes with mechanical precision, her myriad products. The largest liberty within the bounds of law, the greatest variety within the limits of order, the utmost progress and improvement within the principles of identity—these seem to be great laws of creation. While no two blades of grass, and no two leaves in a forest of oaks, are precisely alike, while the flowers of the field by culture and skill may be reproduced in endless variety, while the physical forms of animals, and the intellectual and moral powers of men, are susceptible of progressive changes seemingly infinite, we yet recognize in all and everywhere the limitations of LAW.

While we are rightly accustomed to refer to the influence of the parents many, if not most of the peculiar characteristics, of the offspring, we are, in that direction, met by circumstances which cause us to feel how inadequate are our ideas of the limitations of the laws of reproduction.

That outward and apparently slight circumstances may strangely impress the character of the unborn progeny of animals, is illustrated in the familiar account of the ring-streaked and speckled cattle of Laban's herds. The same principle finds abundant support in many instances which any nurse or doctor will recount. Dr. Holmes, in his *Elsie Venner*, has gone one step beyond the common notions, and chills the blood of his readers with the deliberate portraiture of his poor heroine, cursed body and soul with the cross of a rattlesnake which frightened her mother before the child's birth! The interference of the old

serpent with our moral affairs in the garden of Eden is bad enough, but this new horror of the learned doctor and elegant writer transcends Adam's fall by a long way.

Mr. Goodale, in a very pleasant and satisfactory manner, discusses the Laws of Similarity and Variation, the Influence of Parents, the Law of Sex, Crossing, In-and-in Breeding, and kindred topics. The common nonsense that *Natives* are as good as anything, if not a little better, receives appropriate attention. A Native animal, of the horse, sheep or cattle kind, may, in America, be defined to be an animal of unknown pedigree. He know well enough what a Native Indian or moose or partridge is, but a native cow, unless she be a buffalo, we do not know. Yet, we find, at every agricultural discussion, some venerable fossil who advocates Native stock. His premises are that he can go into Brighton market and select a cow or half a dozen cows of Native breed, that shall give more milk than your thorough-bred Ayrshires or Jerseys, and his conclusion is, that Natives are better than imported stock. Now the fact, that in a market among a hundred cows, one or a half-dozen may be selected, of good quality whose pedigree is not known, is not surprising. Accidents will happen in the worst-regulated herds, and good blood may have got in and produced good stock, and no record be kept of it, or it may chance that some scrub of a cow, like the famous Oakes cow, whose portrait as we have seen it, indicates no known blood, may be a great milker. The question with the breeder is, not how he can get one individual animal of good quality, but how he can be reasonably certain to breed good animals. The answer is found in this principle, which is well established, that only a breed which has been ascertained by long experience to constantly produce progeny of the desired qualities, can be relied upon. You may be sure that a full blood Jersey bull and cow will produce a calf with the peculiar qualities of that breed fully developed. They will never produce any other progeny. But if either sire or dam have but a quarter of the blood of the Galloway, you will never know beforehand what the calf will be. If you go into a liquor-dealer's shop, and at random fill your glass with liquor from three or four bottles, you may possibly find it pure wine, but the chance is that it will be a villainous compound, though each ingredient may have been good of its kind.

The first question is, What do we want, and the next, How shall we get it, says our writer. If we want draft horses, and have mares of mixed or accidental blood, let us get a Suffolk Punch, and his established qualities will be pretty sure to control the feebler qualities of the dam, and give us something like himself.

We know very well that somebody must build up and establish breeds; that the Short-horns among cattle, and the Dishley Leicester among sheep, were created by careful selection and crossing, and no doubt that by judicious breeding from what are termed Natives in America, we might in time create a valuable breed for any definite purpose we might have in view. The question, however, first to be answered, is,—What do we want? That being definitely answered, then we may inquire whether the breed possessing the desired qualities, already exists. If it does, why should we not use it? If it does not, common judgment would dictate to us to select carefully from those breeds of established qualities nearest resembling what we seek, and by judicious crossing patiently build up the breed we desire. The great error of most farmers is, that they regard individual merit above well established blood. We have known, for instance, among a herd of Devons, a male calf produced, which had all the external marks of the breed, the rich mahogany color, the silky feel of the skin, the fine clear eye, but which outgrew all others of the herd, so that the owner at once selected him as a breeder. His superior size, however, was due to a strain of Shorthorn blood in his dam, and this circumstance, which really added to his value as an individual, whether for labor or beef, ruined his progeny, for nearly all his calves, even from pure bred cows, were marked with white, and so were utterly worthless as pure bred Devons.

We have not attempted at all to give the views of Mr. Goodale, but only to discuss loosely some of his topics which are of interest to all breeders of stock. They are handled in a masterly manner by the author, in his modest treatise, which we commend to all for careful perusal.

*For the New England Farmer.*

#### WILL OATS HURT SHEEP.

In reply to the above inquiries of "N. M., of Henniker, N. H.," I will say that after seventeen years' experience in sheep and wool-growing, I am fully convinced that oats are not only safe but profitable to feed to sheep. Two flocks of ewes, all things being equal, say of fifty each, one of them fed on hay only through the winter, the other with hay of the same quality and one bushel of oats per head, which is about one and one-half gill each per day, through the winter, will clip one pound more wool each. *Oats paid for once.* They will raise one-third more lambs. *Oats paid for twice.* They will be in one-third better condition to go to pasture. *Oats paid for three times.* This we call a good investment up here among the Green Mountains.

I have kept three hundred sheep on an average for the last seventeen years, and feed from three to five hundred bushels of oats to my flocks in winter, and am fully convinced that they are not

only safe but profitable. Sheep are very fond of them, they will leave troughs of any other kind of grain and eat the oats first. If you don't believe it now, you will, after you have tried it. H. F.  
*Highland Lodge, Vt., April 1, 1861.*

*For the New England Farmer.*

#### ON THE BLIGHTED CHERRY BLOSSOMS.

MR. EDITOR:—The unusual appearance of our cultivated cherry trees is exciting considerable attention. Few blossoms can be found, and on many of the trees not a single one has appeared. The leaves are just beginning to develop themselves; these are produced from the end or terminal buds of the twigs, and exist first as little brown leaves, folded inward on their mid-veins, enclosed and hidden by a number of scaly or greenish bud-scales; perhaps they are more backward than usual this season, but I do not know that there is anything else out of the way with them. The strange aspect of the trees is due to what at first appears to be a great transformation of the flowers; these are produced from the side or lateral buds of the twigs, but in place of the white blossoms, are found what look like green flowers, consisting of a number of small, thin, dry scales at their base outside, then three or four larger, rounded, greenish ones, as if representing a calyx, then three others, more leaf-like in appearance, as if in place of a corolla, and in the centre of all, concealed by them, two, three, or four little brown bodies, which might be thought to represent abortive stamens and pistils. As all the parts of the flower are really nothing but transformed leaves of various colors and shapes, there was nothing very unnatural in the idea that these strange productions of the cherry trees were flowers, reverting to leafy branches, a phenomenon which does sometimes occur under cultivation. But a closer examination and comparison with real blossoms, has enabled me to satisfy myself as to the true nature of the peculiarity.

Let us go at once to the very bottom of the matter. What are those little brown bodies in the centre of the supposed flower? They are of an oval form, quite hard and shining, as if with dried gum, and often flattened at the top. They stand erect, on a little pedestal which may be easily separated from the end of the twig. Now soften them in warm water; pull one in pieces with a pair of needles, and examine it carefully with a magnifying-glass; we may easily detect therein the several parts of a flower in a very rudimentary state, namely, a calyx of brown sepals, enclosing a number of little round granules, which are the anthers or tops of the stamens, the filaments being as yet undeveloped, and in the midst of these, the club-shaped pistil, the corolla cannot be distinguished, for, though developed just after the calyx, it remains long as a mere rudiment, only at a later period acquiring the size and hue which renders it the most conspicuous part of the blossom. There can be no question that these little hard bodies are flowers, closely packed as buds, the future pedicels not yet having lengthened. They are, in fact, in the same stage of development in which they were last autumn, several of these little buds having been then

formed in the centre of an envelop of scales; the buds were probably destroyed by a sudden change of temperature last autumn, or early this spring, and the powers of the tree which would have been spent in developing *them*, have done the best they could towards converting into leaves the *bud-scales*, which in the natural course of things would have fallen off soon after the opening of the blossoms. On some of the later trees, perhaps, a few blossoms can be found; they are quite numerous on a small tree, bearing sour cooking cherries, in our garden, but many of them are already decaying when but half-expanded; there are none at all on the other trees. Where they do exist, they generally form clusters of two or three together; around the base of the pedicels we may see perhaps some of the bud-scales, themselves, but probably only the scars left by their falling. Their function was, to enclose and protect the tender flower-buds, till they were ready to push forth and unfold; and now, when that has taken place, having no more to do, they soon wither and drop off. But when, as on most of the trees this season, the flower-buds have been killed, and the regular order thus disturbed, the scales, instead of falling off, retain their vitality much longer than usual, and, as we have seen, assume much the form of ordinary leaves. So among insects; the female moth or butterfly lives only to provide for the next generation, and dies soon after the deposition of her eggs; her body and its energies are devoted solely to the formation, protection and proper disposal of the eggs, but if prevented from laying them, she not only lives much longer than usual, but is very hard to kill, resisting a degree of violence and mutilation, which would otherwise speedily destroy her.

We may, especially in the leaf-buds, remark an unmistakable proof of the identity of bud-scales and leaves, in the evident transition from the hard, dry scales on the outside, to the more leaf-like parts within, and so to the true leaves, which are successively unfolded from the centre. The first change from the outer scale, is the notching of the upper rounded end, to form three points of nearly equal size; in the next, the middle lobe becomes more prominent, and in the succeeding ones, this finally becomes the broad blade of the leaf, while the two others remain small, as the stipules or appendages of the leaf-stalk. One of the best examples of this transition may be seen in the Sweet Buckeye, (*Æsculus parviflora*), where the top of one of the lower bud-scales is cut into the form of a little star; the scale next above has the star more distinct, and so on till it has become the largest part, and forms the fine leaflets of the compound leaf. This transition from bud-scales to leaves is also well shown in the lilac, though not in so striking a manner, the leaves being of a much more simple form.

Now compare a real blossom with one of the collections of bud-scales which we find on the cherry trees, and we may see that they differ in some very essential particulars. The parts of an apple, pear or cherry blossom, (for the three are nearly related species,) are on the plan of fives; that is, the number of parts in any one of the floral circles, is either five, or some multiple of that number; there are five pointed green sepals outside as a calyx; then five rounded white pet-

als alternate with them as a corolla, enclosing fifteen or twenty stamens, and in the centre, in the apple, five pistils, in the cherry, one; moreover, the sepals are all on the same level, not overlapping each other, except in the bud, and so also the petals. Now if there is any regularity at all in what we have been examining, there are three inner pieces as a corolla, then three more outside of them as a calyx, with a number of thin scales below them both; so that the parts would be in threes instead of fives, a change for which it would be hard to account. Having scraped away the smaller scales outside, take off the remaining half-dozen one by one, passing round from right to left, and we find that instead of each three being at the same level, each one stands just outside of, or lower down than the one next to the left; and that as we thus approach the centre, they more and more resemble leaves. Again, these two rows of three each are not really alternate with each other, like the calyx and corolla of a true flower, but the distance from each to the one next within it, is just two-fifths of the whole distance round the circle, so that the sixth stands directly above the first; this is precisely the arrangement of the leaves on the stem of a cherry tree; if we begin with any leaf, and count round in a gradually ascending spiral from right to left, we shall find each leaf two-fifths of the entire circumference from the next above or below, and that after going twice round, the sixth stands over the first; the numerator of the fraction two-fifths thus expresses the number of circuits which must be made, and the denominator the number of leaves included, before we come to one immediately above the first. And the only difference between the leafy branch and the small portion of stem which supports the scales of the bud is, that in the latter the stem is so short as to bring all the parts close together, thus giving the appearance of a flower made up of green leaves. We have, however, seen that they are not flowers reverting to leaves, but merely the bud-scales enclosing the true flowers, whose death has allowed them to receive an amount of nourishment which has more or less completely converted them into real leaves.

BURT G. WILDER.

Brookline, Mass., May 31, 1861.

For the New England Farmer.

#### AGRICULTURE, NOT COTTON, IS KING.

MESSRS. EDITORS:—There has been much talk of late about the claims of cotton to the kingdom, but if cotton obtains the crown, it must be by an act of usurpation. Cotton is only one of the offsprings of agriculture, and if he, like Absalom, rises up in rebellion against his lawful sovereign, his fate will be that of other traitors. The reign of King Agriculture extends over the whole earth; he rules strictly on the Christian principles of benevolence; he bestows his favors upon the just and upon the unjust, and his bounties extend to all who trust in him. The merchant is dependent upon his supplies to freight his vessels, the manufacturer for the many articles he fabricates into the endless varieties of gewgaws and wearing apparel, and if the natural productions of the soil may be included in the kingdom of agriculture, he supplies the mechanic with all the materials

*For the New England Farmer.*

**STATEMENT OF GRAIN CROPS.**

MR. EDITOR :—I send you a statement of my oat, rye and corn crops the past year. I sow with oats first, then with rye, and seed with clover. The third year plant with corn and spread the manure on the land ; I then plow it 9 or 10 inches deep, harrow it smooth, and make a small hole for the hill, and put in a composition of hen dung, plaster and ashes, and plant the corn upon it. In this statement the work was done by myself and son, two pairs of steers of our raising and a horse. Perhaps my estimate of the work may be high ; it was kept by the day, and the grain measured and sold at the barn :

for the construction of our dwellings, every implement of husbandry, the mighty steam-ship, and every lesser invention, down to the apple-parer. Whether this self-important, blustering member of the great agricultural family succeed in his usurpation, or not, he must have been one of the more recent offsprings of the race. Since my remembrance, very little cotton was raised in the States ; there was a scanty supply of dirty cotton from the West Indies, abounding in seeds which required both diligence and patience to prepare for the spindle, which came to us at a very high price.

In the latter part of the last century, say from 1794 to 1797, I paid at Charlestown, fifty cents a pound for cotton for domestic manufacture. A cotton shirt then was a rarity ; woolen shirts in winter, and linen and tow in summer, were the prevailing materials for the "under-dresses" of the times in country towns. Those unfortunates whose destiny compelled them to wear tow shirts, were exempted from using the flesh-brush, as the shirt proved a sufficient stimulant. This hot-bed upstart of a self-constituted king was then in his embryo state, and had not yet issued his blustering decree, claiming regal power.

King Cotton must have a limited knowledge of geography, and the width of the world, or a high estimation of his own importance, to suppose he can compel Europe and America to bow to his sceptre. The retrograde motion, to the use of linen and woolen goods again, will be but a step. Linen has always been considered the richer cloth, and now the improvement of cottonizing flax bids fair to supersede the use of cotton for summer wear. Flannel is now worn by many people the year around ; in our changeable climate it would be more conducive to health, if it were still more worn instead of cotton. The Yankee has always been remarkable for accommodating himself to surrounding circumstances ; if he gets defeated in the pursuit of one kind of business, as the merchants did in embargo times, the last war with England, and by tariff laws, it sharpens his invention to substitute a better kind in its stead. The very causes which depressed and ruined merchandise, were the causes of enriching our country, by filling it with machinery, which makes employment for the industrious, and supplies the inhabitants with every variety of manufactured articles, without crossing the ocean to get them, as formerly, from foreign lands.

SILAS BROWN.

*North Wilmington, May, 1861.*

LOVE OF THE WONDERFUL.—What stronger pleasure is there with mankind, or what do they earlier learn or longer retain, than the love of hearing and relating things strange and incredible. How wonderful a thing is the love of wondering and of raising wonder ! 'Tis the delight of children to hear tales they shiver at, and the vice of old men to abound in strange stories of times past. We come into the world wondering at every thing ; and when our wonder about common things is over, we seek something new to wonder at. Our last scene is to tell wonders of our own, to all who will believe them. And amid all this, 'tis well if truth comes off but moderately tainted.—*Shaftesbury.*

| OAT CROP.                   |  | Dr.           |
|-----------------------------|--|---------------|
| To plowing 6½ acres.....    |  | \$6.50        |
| To sowing the same.....     |  | 3.00          |
| To seed 19½ bushels.....    |  | 8.39          |
| To cutting and carting..... |  | 6.00          |
| To threshing.....           |  | 8.50          |
| To interest on land.....    |  | 24.00         |
|                             |  | <hr/> \$56.39 |

| Cr.   |                |
|---|----------------|
| By 221 bushels of oats at 43 cts. per bushel..... | \$95.03        |
| By 4 tons of straw.....                           | 36.00          |
|   | <hr/> \$131.03 |

| RYE CROP.                   |  | Dr.           |
|-----------------------------|--|---------------|
| To plowing 3½ acres.....    |  | \$3.50        |
| To sowing and seed.....     |  | 3.55          |
| To cutting and carting..... |  | 5.00          |
| To threshing.....           |  | 4.60          |
| To interest on land.....    |  | 18.00         |
|                             |  | <hr/> \$31.65 |

| Cr.   |               |
|---|---------------|
| By 71 bushels of rye at 80 cts. per bushel..... | \$56.80       |
| By 3 tons of straw.....                         | 21.00         |
|   | <hr/> \$77.80 |

| CORN CROP, SIX ACRES.          |  | Dr.            |
|--------------------------------|--|----------------|
| To 17 days' work planting..... |  | \$17.00        |
| To team work.....              |  | 8.50           |
| To manure.....                 |  | 50.00          |
| To ashes and plaster.....      |  | 3.00           |
| To seed corn.....              |  | 1.25           |
| To hoeing first time.....      |  | 8.50           |
| To hoeing second time.....     |  | 6.75           |
| To hoeing third time.....      |  | 7.58           |
| To hoeing fourth time.....     |  | 1.75           |
| To cutting stalks.....         |  | 7.00           |
| To picking corn.....           |  | 17.00          |
| To interest on land.....       |  | 24.00          |
|                                |  | <hr/> \$152.33 |

|                         |                |
|-------------------------|----------------|
| Deduct ½ of manure..... | 17.00          |
|                         | <hr/> \$135.33 |

| Cr.  |                |
|--|----------------|
| By 1088 bundles of stalks.....                 | \$10.88        |
| By 664 bundles of corn fodder.....             | 9.96           |
| By 1 ton of corn husks.....                    | 12.00          |
| By 256 bushels corn at 75 cts. per bushel..... | 192.00         |
| By 10 bushels of roots.....                    | 2.50           |
| By 4 loads of pumpkins.....                    | 4.00           |
| By ¼ bushel of beans.....                      | 75             |
|  | <hr/> \$232.09 |

I have some four acres of swamp land to work upon, and am underdraining in part with tile, and part with chestnut timber. I use timber, fearing the tile may not keep their place in the soft muck. The muskrats go in at the mouth of the timber, drain and dig out at the head, thus making a current of air through the drain. Will the air passing through the drain rot the timber ?

I have read the *Farmer* a number of years, with pleasure and profit, and hope to, many years longer.

N. HITCHCOCK.

*Deerfield, Mass., April, 1861.*



THE UNIVERSAL CLOTHES WRINGER.

It affords us quite as much pleasure to suggest what will lessen the labor of the family in the house, as to aid in relieving it in the fields. Indeed, we have long thought that the washing, ironing, cooking, and cheese and butter-making, are foremost among the hard work that is to be done. Several of these are perpetual, with no hope of dismissing them, only for a few brief hours or days at a time. They have always been coming, and so will continue until the present order of things is entirely reversed. What millions of people are forever washing dishes, through the slow process of a plate at a time; or a cup, spoon or saucer! This should not be so. Why does not some genius devise a cheap and easy way of generating steam, so that every woman who has a dozen cups and as many plates, may place them in a suitable rack, turn a cock and let on steam sufficiently hot to start everything from the crockery in a single moment after receiving it. The dinner dishes of a family of a dozen persons ought to be washed and dry in a dozen minutes! We hail any thing with pleasure that will relieve this in-door tedium—this minute, uninteresting repetition of the same thing three hundred and sixty-five times in a year.

A few weeks since we spoke of "*Colby's Clothes Wringer*," in decided terms of approbation, and after a thorough use of it, the women of the fam-

ily inform us that not a word of the praise bestowed upon it should be recalled. Now we have another style before us, a little more of it, and higher in price. This, also, has received a careful trial by competent persons, and is pronounced excellent. We have been tempted to the tub, and have wrung out the duds, with it, with great gratification. With a size larger than the one represented in the cut, we have heard it said, that after soaking the clothes over night they can be thoroughly washed by passing them several times through this squeezer! The cut represents the wringer on a common wash tub, in operation. It is said that it will wring four times as fast as can be done by hand, with one-fourth the labor, and much drier, and wrings anything, from a silk glove to a Dutch blanket; is simple, strong and durable, and will not get out of repair.

Any servant will use it with safety to the machine and with great saving of wear to the clothes.

It is readily and firmly secured to tubs of any thickness, and can be instantly detached and set aside.

**BALM.**—The balm is a hardy, perennial plant, often rising, in good soil, to the height of two feet; the stems are square, and furnished with large sized leaves, of an ovate form, growing in pairs at each point. It was originally derived

from Switzerland, but it has since been ascertained to be a native of France, in the southern part of which it is very abundant. The flowers are of a purple color, and are produced from the middle of June to the middle of October. Paracelsus believed the balm to be endowed with many extraordinary qualities, among which was the quality of preserving or prolonging life much beyond its usual duration. The same opinion, with others still more extraordinary and extravagant, appear to have been entertained by other herbalists. The balm is easily propagated. Loudon says, an easy mode is by parting the roots, and preserving two or three buds on each piece, or by slips, planted in fall or spring. It is used both as a medicinal and culinary herb. Sometimes as a moderate stimulant, and mixed with honey and vinegar, it forms a good gargle for an inflamed sore throat.

*For the New England Farmer.*

#### DOGS.

I had thought that the incessant howling of the dogs of war so rife in our community at the present time, would have partially diverted the contracted strife so liberally bestowed upon the home guard to another and more commendable purpose.

But in this I find myself disappointed. This constant warfare upon the faithful sentinel of our homes, our firesides and the individual members of our families, kept up by your correspondents, seems a very one-sided affair. And, in my opinion, too much so to elucidate the real merits of the case. Therefore, partly by reason of the unpopularity of the dog's defence, and partly by reason of a well-grounded attachment to the faithful dog, I propose to espouse his cause.

That there are many worthless curs in the community, I am in nowise disposed to question. But when your correspondent declares all dogs and their owners nuisances, he assumes a prerogative which his candor ill befits him to occupy. To such I have only to say, should he chance to pass our way some moonshiny night, he will find our hennery well secured. Besides, we keep a dog.

As to the non-congeniality of dogs and sheep there is more talk than facts. Times must have strangely changed since the days when the shepherds' dogs well guarded their flocks by day, and kept harm aloof in the still watches of the dreary night. Dogs seldom molest living sheep. They often prey upon the dead carcass of a sheep as upon that of an ox or a horse.

Sheep, when kept in considerable numbers, die of their own poisonous contamination. They carry concealed between their hoofs a sack of poison, adequate for the destruction of quadruple their number at any time.

But I do not propose to enter into the physiology or constitutional predilections of the sheep, at this time, further than expediency requires in the just vindication of the dog. The point I desire to bring to view is, that much of the blame attributed to dogs is in no way chargeable to

their fault. Sheep, unless great care is maintained in regard to their regimen, are much disposed to disease; and often fall an easy prey to their own contamination. Other contingencies await their strolling career. Foxes, eagles, wildcats, and in some sections of our wool-growing country, wolves prey upon sheep. But where we have a dog law which makes ample provisions for remunerating owners for rotten carcasses found on their premises it is very convenient to lay the blame to dogs. Otherwise they would get no recompense for the dead sheep. Furthermore, well authenticated instances have been traced out, where sheep have been found dead with no marks of violence upon them, and dogs have been invited to prey upon the dead carcass, that the town might not only ring with the ravages of the dog, but that the town treasury should in some degree assuage the agony of the owner of the old ewe.

This putting on airs at agricultural meetings and talking about "burning shames," may serve a practical purpose to those who have no higher aspirations in view than selfish aggrandizement, especially if their powder is a little damp on other and more kindred subjects.

It may be my misfortune, but twenty years of experience among sheep produces in me the conviction that your correspondent who talks about the established fact that every cow will carry one sheep, without detriment to herself, talks of false facts, and gives credence to assertions which he practically knows nothing about. No neat stock will follow sheep except upon the starvation principle. Try the experiment. Pass a flock of sheep through a belt of grass while the dew is on it, and then see if your cows will molest a spire of the grass, which came in contact with the feet of the sheep until washed by a refreshing shower.

Should I essay to give an opinion upon sheep culture in Massachusetts or New England, it would be widely at variance with the vaunted theories of the day. High spun theories too often prejudice the well-disposed, progressive agriculturist.

Why marvel at the apparent distrust of many practical farmers, while the columns of our agricultural weeklies teem with crocodile lamentations over "the poor and nearly-extirpated crow," who, while we are reading his epitaph, is doing his best to divest our corn plat of the last blade of corn which dares protrude its spire-like cone above the surface of terra firma. And in rapid succession comes a plea for the birds in our strawberry bed, who next take our cherries, when we have any. And then, as if the work of virulence so well begun, had failed to accomplish its purposed aim, our faithful and trusty dog, and his *master too*, are denounced as a nuisance, and an extirpation tax demanded. We have never yet learned that He who has duly registered the hairs of our heads, ever regretted having made the dog. But that it might have been otherwise with another and varied class of his handiwork, I think we have no good reason to doubt.

One word to our Saugus friend, who seems intent on fleeing to the hills of northern New Hampshire or Vermont to enjoy the delicious privilege of sheep-raising, and I close. Numerically, so far as dogs are concerned, he would be



jumping out of the toasting-pan into the red-hot coals. In that land of sheep, there are many more dogs, in proportion to the number of inhabitants, than in this section. Wishing, however, not to dispel his good intentions, I would add that dogs there are not known to trouble sheep. Why? Because they have no dog-law.

Georgetown, Mass., 1861. H. M. COUCH.

*For the New England Farmer.*

#### SUGGESTIONS TO FARMERS.

MR. EDITOR:—In my opinion, farming is the foundation of all other employments. With it, all other kinds of business are intimately connected, and upon it, they all chiefly depend. Should the labors of the farmer, from any cause whatever, only for one short year, utterly fail of success, the failure would not only produce an indescribable amount of human suffering, starvation and misery, but it would paralyze all other kinds of business, and produce a complete stagnation and embarrassment in the community. Such would not be the case, should a similar failure take place in any other business, which is a convincing proof, that farming is the foundation of all other employments.

In these United States, in which agricultural pursuits form the basis of individual and national prosperity, and in which the sum of the various productions is limited, not by the number of acres cultivated, but by the quantity of labor and by the skill of the laborers, a more judicious employment of that labor and skill would be a clear gain to the individual as well as to the nation, now lost to both by a want of application and skill. That it is skill and labor in cultivating the earth which produce abundant crops, requires no proof. Every one must have seen farms, otherwise equals, the one producing the double of the other by the superior culture and management of its possessor; and every one must have under his eye numerous examples of persons setting out in life with no other possession than a skillful knowledge of the business of farming, and speedily, by the exercise of skill, diligence and economy, acquiring wealth and independence. But to acquire wealth and independence was not the grand object of their labors, but to procure greater means of subsistence and of enjoyment for themselves and their families.

It would be well for farmers generally to cultivate a variety of crops. If they cultivate one crop only, of any particular kind, it may so happen, that, after all their skill and labor, that particular crop may entirely fail, and leave them entirely dependent on others for a subsistence. Whereas, if they cultivate a number of the most useful and profitable crops, all the different kinds will not be likely to fail in any one year; so that they will have something to depend upon. Besides, a variety of such crops as are absolutely needed for the subsistence of every family, is not only very desirable, but contributes much to human comfort and happiness. The most desirable productions, and the most profitable, too, are all kinds of fruit, such as apples, pears, peaches, plums, cherries, grapes, currants, gooseberries, quinces, &c. The next most desirable crops are grass, corn, potatoes, wheat, rye, oats, barley, and last,

not least, all kinds of garden vegetables. Those farmers who cultivate the greatest variety of these, and cultivate well, are generally the most successful and the most independent.

It is a very obvious remark, that intelligent farmers ought not to be carried away by any of the fancies of the day; such as fancy stock, fancy poultry, fancy manures, fancy farming, &c. There is enough that is real, genuine, substantial, well-known and practicable, without dealing in fancies. One "hen fever" and one "morus multicaulis" excitement ought to satisfy us. We should leave all the fancies to the fanciful and the wealthy, who have plenty of money and plenty of time to try experiments; and who are able to bear the loss and to meet the disappointment, in case of failures. The wealthy and the fanciful consider it their peculiar province to be the first in the field of discovery; and we should be ready to adopt in practice every well-known and well-established improvement, from whatever source it may come, and to unite the useful with the agreeable and the beautiful. If we try any experiment at all, we should do it on a very small scale, and endeavor to keep up with the improvement of the times.

Into whatever classes or occupations men may be divided in different nations, it is obvious, that there must be in every nation such a class as farmers, or agriculturists, who till the earth and practice the arts of husbandry so necessary to the subsistence, the comfort and the ornament of human life. No nation, except it be in a savage state, can exist, much less prosper, without farmers. They are the very backbone of every nation; for upon their strength and skill and efforts, more than upon any other class of laborers, all depend for their subsistence. Success in the business depends chiefly upon the skill, the industry, and the economy of the laborers. These are the characteristics of every good farmer. Neither of these will do alone. They must be united. Skill, without application and without frugality, will not accomplish the object. Industry, without knowledge and without economy, will fail of success. And economy, without labor and skill, will also fail. But all three united will make a successful and profitable farmer.

Warwick, Mass., 1861. JOHN GOLDSBURY.

LOVE OF THE WONDERFUL.—What stronger pleasure is there with mankind, or what do they earlier learn or longer retain, than *the love of hearing and relating things strange and incredible*. How wonderful a thing is *the love of wondering and of raising wonder!* 'Tis the delight of children to hear tales they shiver at, and the vice of old men to abound in strange stories of times past. We come into the world wondering at every thing; and when our wonder about common things is over, we seek something new to wonder at. Our last scene is to tell wonders of *our own*, to all who will believe them. And amid all this, 'tis well if truth comes off but moderately tainted.—*Shafesbury*.

A LADY asked her gardener why the weeds always outgrew and covered up the flowers. "Madam," answered he, "the soil is mother of the weeds, but only step-mother of the flowers."

## HOEING.

This is an item of farm work not yet fully appreciated by a large number of our farmers. It involves some exceedingly interesting and important principles that are little understood, and which the farmer cannot well afford to neglect, if he means to secure a profit from his crops.

In the first place, if the ground is not frequently hoed, it soon becomes covered with what we call weeds, that is, plants of a more hardy nature than those which we cultivate, which take possession of the soil, both above and below,—appropriating its fertilizing qualities, crowding and shading the young corn or other plants, and finally overpowering them so that they dwindle awhile and come to naught.

Look at the loss sustained by such a practice; it is no less than that of preparing and hauling the manure, spreading it out, plowing the ground, furrowing, planting and covering, and the waste of seed and loss of land! When proper cultivation is neglected, all these are not the *only* losses, for a crop of rank weeds is produced, which scatters its seeds far and near, to exhaust the soil and vex the husbandman for many future years!

Is not the neglect to hoe and properly cultivate a crop after it has come up, a most short-sighted and suicidal policy? The same policy, pursued in mercantile affairs, would ruin the most skillful merchants in the land.

The old adage,—“One year’s seeding, makes nine years’ weeding,” is one that ought ever to be borne in mind. A single weed, oftentimes, if permitted to grow and mature its seeds, will be the means of ultimately abstracting from the soil as much alimentary matter as would suffice for the support of a valuable crop of wheat or corn. Being indigenous, weeds are invariably strong feeders, and require a vast amount of nutriment for their support; hence their well-known and powerfully exhausting effect upon soils. The thistle, when permitted to obtain root, soon occupies the land to the entire exclusion of more desirable vegetation, and the same is the case with several other species of plants. Like vicious habits, they flourish by indulgence, till finally they usurp complete control, and bid defiance to every effort.

But this is not all. Suppose the land is free from the seeds of foreign plants, and no weeds make their appearance among the crops, is hoeing unnecessary? By a great many farmers it is thought to be so, which shows that the prime object in hoeing is supposed to be the eradication of weeds only. Let us see if this is the case.

Land that has been plowed, harrowed, and brought to a pretty smooth surface, and left in that condition, soon has a crust formed upon it in consequence of the evaporation of the mois-

ture which it contained. This crust will vary from a quarter of an inch to an inch in thickness, and on some soils becomes so tenacious that a cake of it several inches in diameter may be taken up. When land is in this condition, it is not in a proper state to receive the fertilizing influences which always surround it, and of which it would avail itself under more favorable circumstances.

1. If the season is a dry one, and showers are few and light, that crust will lead off most of the water into low places, instead of receiving it into the soil, as it would if the surface were light and porous.

2. When in this condition the roots of the crop are especially deprived of three things, viz.:

The moisture which the rain-water supplies,—the ammonia which is carried along with it, and the heat which the rain-water contains.

The first is indispensable to plants; the second is a powerful stimulant, as it renders other matter soluble which feed the roots; and the third supplies a bottom heat for them, which keeps the plants growing when cold and chilling winds are passing over the surface. These several advantages are in a great measure lost by neglecting frequently to stir the soil.

3. Suppose a drought prevails. Will an unhoed field resist its influences, as long as a field well hoed? Nothing like it; because when the rain falls, it is mostly led off on the impervious crust, unless it comes in the character of a storm, and continues for many hours. If well hoed, however, the surface is light, porous, and in a condition to be influenced by several causes.

First, by the air. The atmosphere not only hangs over our fields, but rests upon the surface with a pressure of fifteen pounds to an inch. This air, or atmosphere, is always filled with moisture, as may be demonstrated at noon of any hot day by filling a pitcher with cold water. In a few moments the outside of the pitcher is covered with beautiful transparent drops. Where do they come from? Why, the pitcher sweats, exclaim several about the table! But no water passes through it, certainly, as moisture does through the pores of the skin when we sweat. Nor was any water spilled upon the outside of it, when it was filled, although the drops have now trickled down its sides and wet a place a foot square in the table-cloth. Wonderful! How came it there? No human eye is keen enough to detect the alchemy of the transmutation! The pitcher being filled with *cold* water, becomes a condenser, and when the warm air touches it, its vapor, or moisture, is condensed and formed into drops on the outside, and this proves that the air is full of moisture. Now, in a well cultivated field, this is precisely the operation of the air upon it during

a drouth. The surface of the soil is light and porous; the air, containing moisture, rests upon it, and passes through the loose particles, until it gets down where the soil is cooler than itself, and is then condensed, and the *field is actually watered in the middle of the hottest day in July!* This operation is continually going on through the hot, clear days. In the night, when the air becomes cooler than the earth, the moisture is condensed on the leaves of plants, and blades of grass, and is called dew. Some of this falls to the ground, and is taken up by the loose soil, other portions are absorbed by the plants, and the remainder goes back into the air by evaporation, when the solar rays impart their heat to it.

Thus the field of the careful farmer, which is nicely hoed, is daily watered in the hottest days by nature's own processes, while that of the careless farmer is pinched for the want of moisture, the corn leaves curl, turn yellow, and lose so much vitality that the crop is ruined.

Who will say, then, that hoeing is not among the most important items of farm work?

#### A SENSIBLE WAY TO GET MORE FOOD.

The *Homestead*, published at Hartford, has the following among several excellent articles, on the means of producing food.

Another item in securing more food, is more manure. The last shovelful that can be gathered from the yards, stables, sties and privies should be used. In addition to this, we can safely buy Peruvian guano, Coe's superphosphate of lime, and perhaps some other brands; bone dust, wood ashes, and other concentrated fertilizers, if we can get them from responsible parties. These can be used in the hill, or as top-dressing during the growth of the crops. Farmers who make the most stable manure and compost, are most likely to buy these concentrated fertilizers. The only kind of farming which pays on our exhausted soils, is that which feeds the land generously with plant food. We have sunshine and rain enough to grow as good crops as were ever gathered from the virgin soil of New England. There is a strong temptation to buy manure this year, for prices for food will undoubtedly rule high next fall.

There is also an opportunity to increase food, by top-dressing pastures and meadows. The reason of the barrenness of so many of our pastures, is the fact that they have never received any care. Cows have been kept in them during the day, and full one-half of the manure made from the grass, is dropped in the yard, or by the way-side. They have been systematically robbed for a century. If these pastures could be top-dressed with some of the concentrated fertilizers, especially with bone dust, they would recover their fertility, and again make the products of the dairy abundant.

Many of the meadows that now yield a ton of hay or less, can be made to double their crops by the same process. With hay at twenty dollars a

ton, farmers have a pretty strong motive to get three tons to the acre. More manure makes more hay, and more hay, more food for man and beast.

#### EXTRACTS AND REPLIES.

##### THE CROWS AND THE CORN.

My feelings were much shocked by reading an article on page 257 of your last issue of the *Farmer*, concerning the prevention of cornfields being disturbed by crows and blackbirds. Being a contributor and constant reader of the journal, I feel it my duty to say that such inhuman cruelty as that which you there prescribe is beneath the usual standard of the articles appearing in your sheet. I think if you but consider the lingering suffering and death of a bird so tortured, your higher sentiments as men will predominate over the desire for gain, and that in recalling the suggestion you will seek to place before your readers some less barbarous method to prevent these birds from eating that which they have no reason to believe, (not having been gifted by God with that power) is not for them. I think I know of at least two families, (farmers,) who previous to allowing their children to examine your usually unexceptionable work, will call into service a pair of scissors. J. A. L.

Boston, June 1, 1861.

REMARKS.—It would certainly give us pain to publish anything unnecessarily to shock the sensibilities or sentiments of humanity in any one of our readers. The article objected to was thrown into the "copy drawer" under the impression that the process was one of those innocent ones often indulged in by boys in our streets, as well as in the country, of tying a thread to one or more kernels of corn, and laying them before doves or hens. They swallow and disgorge without injury, but get too much frightened to return often to the same localities for supplies. There is no need of destroying crows, blackbirds or squirrels to prevent them from pulling up corn. If hot water is turned upon the corn, and a spoonful or two of tar is added and stirred among it, each kernel will become so coated with the tar as to prevent its being palatable, and it is safe.

##### BRAHMA FOWLS.

In the *Farmer* of March 2d, you published an account from me of the laying propensities, &c. of the Brahma fowls for three winter months. I have received many letters of inquiry as to their laying this spring, as many think they must have exhausted themselves in the winter, and therefore will not lay well in the spring. With your indulgence I will answer them through the columns of your paper. I have kept 15 hens this spring; they have been fed as in winter, with the exception of vegetables; they have laid, during the three spring months, 68½ dozen eggs, weighing 129 lbs. They have not been cooped this spring, although I have two acres of land planted with fine seeds bordering within ten feet of the coop. They have not scratched it or molested it in any way. JOHN S. IVES.

## BUSHES—HAY-CAPS—ASHES, ETC.

I have a pasture somewhat grown to bushes. I intend to put sheep on to it one year from this time. I wish them to kill the bushes; shall I do anything with the bushes at present? Can I do better than to mow them one year from next August. If so, what? (a.)

What is the best size for hay caps—will good cotton cloth answer the purpose? (b.)

Will green grass, if free from extraneous moisture, take any hurt if put in the cock and covered with caps for a few days—that is, does it really require any making before being put into cocks? (c.)

How much buckwheat should be sowed to turn in as a green crop? (d.)

Can two crops be turned in, in one season? (e.)

Which will be the most valuable to turn under—one good clover crop or two of buckwheat?

What is the relative value of leached and unleached ashes for manure on light sandy loam?

*New Bedford, 5 Mo. 15, 1861. G. W. H.*

REMARKS.—(a.) Yes—mow them in June, and the sheep will then browse the new shoots and greatly retard the growth.

(b.) Take twilled cotton, worth nine cents a yard—cut off two pieces each six feet long—sew them together and hem the ends. Turn over the corners so as to make a loop—into this place twine to run the pin through.

(c.) We never have placed caps over green grass. Should think three warm days and nights would spoil it. Try it yourself, and let us know the result. Grass pretty well wilted, and then covered for a proper time, makes the best hay—it retains much of its peculiar fragrance, or aroma.

(d.) From six to eight pecks.

(e.) Yes, under favorable circumstances.

We are not able to answer either of the two remaining questions. We should be glad to pay 25 cts. per bushel for 100 bushels of good unleached ashes, or 15 cts. per bushel for the same amount of leached.

## ASHES AND LIME FOR CORN AND WHEAT.

I am going to farming by your paper. They don't manure the land here. I have none to put on at present. I can get plenty of wood ashes and lime. Will that do for upland, sandy or clayey and soil? Be so good as to let me know the best way it is put on for corn and wheat, if it will do.

MATTHEW STUART.

*Osage, Crawford Co., Mo., May 19, 1861.*

REMARKS.—Ashes and lime are excellent. Sow the lime broadcast at the rate of ten bushels, slaked, per acre; more will do no harm. Put a handful of ashes in the hill, and mix it with the earth a little before dropping the corn upon it. Or, if you plant with a "planter," scatter the ashes and harrow it in. In hoeing, put a handful of ashes round the corn, once or twice during the season.

## HAY CAPS.

Please give in your valuable paper the components of the preparation to dip hay caps in, for the benefit of self and others in this neighborhood, who are thinking of trying their luck in the thing.

PETER WOODCOCK.

*Marshfield, May, 1861.*

REMARKS.—We know of no composition to cover hay caps. These are sometimes spread with linseed oil—but even that is unnecessary, unsafe, and makes them inconvenient to handle and take care of. If covered with oil, there will be some danger of spontaneous combustion if the caps are packed away in a body, in a dry place. If you use good twilled cotton, worth 8 or 10 cts. a yard, no covering is necessary. It will shed the rain effectually during a storm of a week, if well put on a cock of hay or stook of grain. The cock should be made high and peaked, so that after the hay has settled, there may be a sharp descent on the sides of the cloth for the descent of the water.

A patent fastener, with India rubber stretchers, is now made by Chase Brothers, of this city, which keeps the cap drawn tight over the cock as fast as the hay settles; they may be purchased for about six cents per cock, that is, four of them.

## CULTURE OF THE GRASSES.

I was pleased to see in your paper this morning the brief notice of "L. B.'s" remarks upon the culture of grasses. I look upon this topic as one of great interest to farmers, and one that has hitherto been very much neglected. So far as my observation has extended, farmers generally have been too sparing of their seed.

Here let me say that my family lately received from a lady of N. H., (too diffident to be named) a firkin of 40 lbs. of the nicest butter I ever saw, made and put up by herself, (within the last month.) How she managed to make butter so nice, at the season of the year, I am not advised. Perhaps the same correspondent, who so well understands the nature of grasses and also every other agricultural topic to which his pen is applied, will be able to tell us how to make butter of the nicest quality, and preserve it in the winter time. I do not expect he will be able to make a pound from each and every four quarts of milk given, as some pretend they can; but if a pound can be obtained from each ten quarts of milk, I shall be satisfied.

J. W. P.

*South Danvers, May 25, 1861.*

## CULTURE OF GRASSES.

I have read with interest the sound, practical remarks of "L. B." in the *New Hampshire Journal of Agriculture*, on this subject. It is one on which our farmers might profit by his suggestions. They have so long gone on sowing a little herds grass—a little clover, and less red-top—and relied upon this sowing as the basis of their grass crop, that they have no conception that anything better can be done.

It is perfectly clear that without seed is plant-

ed, no crop may be expected; therefore, when the ground is properly manured and pulverized, let there be seed planted. Do not confine the planting to the kind above named, but mingle all those kinds you would be willing to have grow on the land, and when one kind don't take, another will. There is no telling what shall happen, until you try. On most of our land, two tons of hay can be grown to the acre as readily as one, and he that spread his seeds so sparingly as to raise only one ton to the acre, takes in at the spicket while he lets out at the bung, as the saying is.

May 10, 1861.

ESSEX.

#### BUNCH ON THE TEAT OF A COW.

I wish to inquire of you or some correspondent of your paper for a method of removing a bunch from the teats of a cow. I have a valuable cow, but on one of her teats near the end is a small bunch or protuberance which makes it hard to milk her, and I am desirous to have it removed. If some one can tell me through the columns of your paper how to remove it, they will greatly oblige a subscriber to your valuable paper.

J. O. LOCKWOOD.

St. George, Vt., 1861.

#### THE RIGHT PLUCK.

I have not yet enlisted in the army, but *have* enlisted under a motto similar to one the Faneuil Hall Market men sent with their contribution to the Massachusetts troops:

"YOU FIGHT  
AND WE WILL" GROW THE "FEED."

Let every lover of the "Stars and Stripes" who owns the soil, devote his land this year to nothing but what shall minister to the real necessities of mankind, and may Heaven bless our labors and our cause.

W. H. ATKINS.

Westfield, May 14, 1861.

#### A COLT'S INJURED EYE.

I have a colt which has scratched his eye badly; the lids are much swollen, a film covers the ball, and it discharges quite an amount of matter daily. If you can suggest a remedy, you will oblige

J. CROSS.

Westport, N. H., May 2, 1861.

REMARKS.—Wash it two or three times, daily, with weak arnica water, and do not allow the colt to be exposed to the full light.

HOUSE PLANTS OUT OF DOORS.—Those who keep plants in the house during the winter, should, within a few days, set them out in the flower borders for the summer. In the case of most kinds of plants, it will be better to turn them out of the pots and set the ball of earth in the ground. To keep the ball whole, place the hand over the earth and gently knock the edge of the pot against any hard substance, and the ball of earth will come out whole without any difficulty. Transplanted in this manner, the plant will receive no check, as the roots will not be at all disturbed. There may be some plants, however, which it is desirable to keep in pots. Such should be plunged to the rim of the pots in the

border, and occasionally lifted during the season to break off any roots which may stray through the hole in the bottom of the pot. Most house plants should have a sunny exposure during the summer, but there are some which like a partial shade. Fuchsias, for instance, should be planted on the north side of a fence or house, as they will not flourish in a sunny spot. No plant should ever be put under trees for the sake of shade, as very few will succeed in such a situation.—*Country Gentleman.*

For the New England Farmer.

#### EXTRACTS FROM MY NOTE BOOK.

Farm Work—Planting Potatoes—Birds and Insects—Solar  
Halos—The Season.

It is my practice to record results and occurrences connected with country and farm life that come under my observation; I herewith send you a few extracts which you can dispose of as you see fit. The extracts are not confined to any one subject, but are generally such as may occur or be suggested in every day life.

May 10, 1861.—Farm work in full operation. Sowing grain and planting potatoes. Ground in first rate order. These few warm, windy days have made the soil dry, light and considerable warm. Too early to plant corn, although the first bobolink was seen yesterday; and old farmers say when they arrive 'tis corn planting season; but I guess this bird was an advance scout, as I have seen none since. Early shrubs, as gooseberries, spirea, elder, in full leaf. Lilacs, horsechestnut, balm of gileads just bursting, and buds of fruit trees swelling.

PLANTING POTATOES.—We are apt to seed too high; that is, too much seed to the hill; three stalks are sufficient for a hill, planted in the ordinary way; therefore, three pieces containing one eye each are enough for a hill. When we plant, we are more apt to put in twice or three times that number, especially if the potatoes are small; and herein large potatoes are superior for seed, as by cutting them, we are not as liable to over seed. In some varieties of potatoes the eyes are scarce toward the but-end, and when cutting, many pieces will be found on which they are entirely wanting. These pieces are considered worthless, as they will not produce a stalk. I have noticed something peculiar with regard to these pieces, and I want you to observe and report the result of those observations, which will prove or disprove the truth of my theory, which is this: that a portion of potato containing no eye, and usually considered worthless, will, by a certain process, produce tubers similar with the portion containing an eye. Now for the proof. Plant these eyeless pieces same as any; many of them will continue sound in the ground during the summer, but there will be a slight wart-like protuberance that will grow on or from the stem, forming a part of the potato. On examination of this wart or knot you will see several little eyes similar to those on a perfect potato. Preserve these pieces, and plant them again the next year, and they will produce potatoes, the stalks springing from the minute eyes in the last year's addition above mentioned. There, farmers, what do you say about it? I have never seen this referred to; but bring forward your *pros* and *cons*.

**BIRDS AND INSECTS.**—The farmer who destroys king birds and martins because they eat a few of his bees, pursues a "penny wise and pound foolish" policy. In ridding himself of what he considers an enemy, he is making way for the entrance of a host of others. Besides the other insects these two birds destroy, they kill hundreds of bee moths, those pests of the hive. The moth that lays the eggs from which hatch the worm that destroys the contents of the hive, is called *Galleria ceronea*, and its wings spread a little over an inch; fore wings of a dirty gray color with blackish spots; hind wings yellowish. There are two broods during the year; one the last of April or first of May, and one in August; so the hive is not safe during the summer. It requires care to protect them, and for this purpose they should be examined once a week, and the worms and insects destroyed. The moth flies only by night, unless disturbed.

**SOLAR HALOS.**—*May 13.*—Splendid solar halo from 10½ A. M. till 3¼ P. M.; brightest at 11 A. M. Ring or circle estimated to be 20° in diameter, well-defined, and colors bright throughout. A portion of a larger concentric ring was seen in the east, at 11 A. M.; color pale; its diameter would have been about 45°. Halos are caused by light being transmitted through crystals of ice high in the atmosphere, the well-known prismatic colors being formed by the refracting power of the ice. The temperature of the atmosphere is at or above freezing, forming these crystals, and giving the sky a hazy appearance. Halos in most cases are followed by a storm. P. S.—Began raining at 6¼ P. M., or three hours from the time of the disappearance of halo. The storm continued through the next day, until 7 A. M. of the 15th.

*May 23.*—The season has been rather backward. Ground is in good order now, but has been wet and cold. Yesterday and to-day have been the first real warm days we have experienced. Farming operations are well-advanced; corn most all planted. No injurious frosts lately. Grass looks well; not very high, but very thick and even. Trees are backward; birches, maples, lilacs, &c., are just leafing; to-day has been the warmest yet; at 2 P. M., the mercury was up to 66 degrees.

GEORGE E. BRACKETT.

*Belfast, Me., May, 1861.*

**TRADE IN FROGS AND SNAILS.**—There are one or two articles of commerce in Switzerland which we are sure no Englishman or American ever thought of "trading in;" and yet which might be made profitable perhaps, for the marshes bring forth as abundantly there as here. Catholics not being allowed to eat meat on Fridays, and various other days in the year, and Catholics being many in the land, all manner of fish are in great demand. Frogs and snails belong to the genus fish, and are collected in great numbers for cloisters, monks being among those who preach, but do not practice, fasting. It is not necessary to enjoin the peasants to deny themselves meat, as they seldom eat it except on Sundays. Snails are fattened in gardens on certain kinds of leaves, and one may hear the chattering of their teeth as they eat, in passing by. From Zurich they are

exported to Italy in the autumn. It is only frogs' legs that are eaten, and formerly they used to catch them and cut off their legs, leaving the animal to die a painful and cruel death. In a period of four years, the cloister Rheinau disposed of forty thousand snails and thirty-six thousand pairs of frogs' legs.—*Cottages of the Alps.*

*For the New England Farmer.*

#### THE FARMER WITHOUT THE MECHANIC.

MR. EDITOR:—Indulge me in saying a word in behalf of the mechanic, who seems destined to stand in the background in the opinion of some of your correspondents, both pecuniarily and otherwise. I regard it as a mystery, why, with the same ability, he cannot accumulate an amount of property equal to the farmer. The farmer's expenses may be less, but, on an average, his income is also less. In my opinion, they are twin occupations, equally honorable and profitable, and the world should as much encourage one as the other. God has filled the earth with numerous elements and substances which the farmer acts upon to bring about means of subsistence. He has also endowed man with intellect and genius, which he has assiduously cultivated, and the mechanic employs the workmanship of mind in his daily labors, so that one occupation is a direct assistance to the other. Who must we depend upon for all those articles which the farmer has in constant use, for the thousand tools which are necessary to lessen the severity of his task? Without these we imagine that farming would be dry and toilsome, exceedingly so, both in doors and out.

One author has remarked that mechanics' wives soften and subdue the stern realities of life more than any other class of women, and that mechanics' daughters ever constitute the best of wives when they reach the test. I have ever been a farmer's daughter, and am well-pleased and contented with so noble and happy a lot, trusting I am unlike that large class who are represented as feeling no interest in their fathers' and husbands' labors. I must suggest they are less numerous than some people, at least here among the hills of the "Granite State."

Will it call forth censure, if I say that farmers' daughters indulge in aspirations for higher intellectual life? It cannot be; for thought inspires to action; and who shall say what the strong, energetic, yet tender mind of woman may not accomplish if directed aright?

MARY C. FRENCH.

*Enfield Centre, N. H., May, 1861.*

**CARE OF GRINDSTONES.**—No grindstone should be exposed to the weather; it injures the wood-work, and the rays of the sun harden the stone, so that in time, it will become useless, neither should it be allowed to run in water, as the part remaining in it softens and wears away faster than on the other side. The water should be dropped or poured on. Greasy or rusty tools should be cleaned before grinding, or they will choke up the grit. Keep the stone under cover. These rules will save farmers much vexation and expense.

*For the New England Farmer.*

**IS FARMING PROFITABLE ?**

I have noticed with interest the discussions in your paper on the productions of land, and the important subject, "Is Farming Profitable?" It gives me pain to see communications from men, particularly from men prominent in the community in which they live, speaking discouragingly of the great and paramount interest of agriculture, and undertaking, by a false course of reasoning, to make out that the farmer has mistaken his calling, and that if he wishes to free himself from a perpetual drudgery, he must give up the old farm, and seek a more easy and lucrative business than the pursuit of agriculture in Massachusetts.

It would be extreme folly to advocate or attempt to make out, that poor farming is good business. And what I mean by poor farming is, to half cultivate the land, neglect the making and proper application of fertilizers, to be always behind in business, to plow late, sow late, be neglectful about the house, out-buildings, fences, &c. Such farmers are to be found in every community, and are always complaining of their unfortunate and unsuccessful business.

The commercial man prospers only by the strictest attention to his business, and a very few, comparatively, succeed. The half learned, easy and careless professional man seldom makes his mark in the world. We must not judge of each of these callings by such persons, but rather by those who take a high position in their profession, are practical in their operations and economical and industrious in their habits.

The question a young man should ask when he wishes to select a permanent business is, is it a good business when well managed? Too many of our farmers are devoid of system in the management of their farms, and this accounts for so many poor farms and poor farmers. I claim that an agriculturist can reduce his business to a regular system, lay out his plans and carry out every department of his programme, and rely upon the result, with as much certainty as a man in any other business.

"H. C. Merriam," of Chelmsford, in your last April number speaks of farming in Massachusetts, as comparatively poor, and as being a life of drudgery and ignorance in comparison with other callings. If the town in which "H. E. M." lives is represented by his views, so near one of the best markets in New England, it must have a miserable class of farmers, or have miserable farms to cultivate.

It is shown by statistics that three-fifths of the wealth of the United States is in the hands of the agriculturists, and by their votes they could control the country. Their capital is as permanent as the hills and valleys, not exposed in Wall Street in New York, or State Street in Boston, to the highest bidder, to-day worth fifty per cent. more than to-morrow, not exposed to the changes that make a man rich to-day and poor to-morrow, as it is with those who venture their all in trade and speculation. It is ascertained that not more than fifteen out of one hundred of the merchants of Boston and New York succeed, while ninety-six out of one hundred of the agriculturists succeed. This shows the uncertainty of one and the stability of the other. Throughout the vast and

beautiful valley of Berkshire, agriculturists who are skilful farmers are prosperous almost without an exception. Men who use their capital upon their farms find it a sure investment; but too many invest their surplus money in railroad and bank stock, while their farms need improvement.

The manufacturers of Berkshire have made more and are better off to-day, as a whole, than any other class of our citizens, and have been a great benefit to the farmer by creating good markets; notwithstanding they are not as independent in the true sense of the word as the agriculturists. They are liable to losses, changes, depression, anxiety, which present great temptations to pursue a course discreditable to themselves and injurious to the community.

There is another important consideration; a few owners of manufactory establishments, like those in Lowell and Lawrence, employ from one to six hundred operatives, for the most part the poor who need the wages of every day for a living. When business is prosperous, all is very well—a panic, and then five hundred men and women are at the mercy of one or of five men, subject to lower wages, or half time, or no employment at all, and are left destitute, and many times suffer, being unacquainted with other business. There are no such contingencies with the farmer or his help. There is about so much help wanted every year, and he has it, let the rest of the world go as it will, and he feeds and clothes his help.

Therefore the conclusion is reasonable that there is no position in which a man is so entirely independent, almost without a contingency, as a good farmer owning a good farm, well stocked, good buildings and out of debt. He plows, plants, sows, reaps and gathers in, and in the most unfavorable season he has enough and to spare.

Every department of farming is profitable, if well managed; I speak now of my own observation: More than twenty dairies in this vicinity average 500 pounds of cheese to a cow, besides making more or less butter spring and fall, and this for ten years, each cow averaging \$50 per year, and raising heifer calves enough to keep good the dairy, beside what milk the family use. A farm that will keep 25 cows in good condition, is worth \$6,000, stocked \$1,000—total \$7,000. Now suppose the farmer raises nothing else but butter and cheese to sell—

|                                 |                |
|---------------------------------|----------------|
| The product of 25 cows is.....  | \$1,250 00     |
| Interest on farm and stock..... | \$420 00       |
| Hired help.....                 | 200 00— 620 00 |
| Profit.....                     | \$630 00       |

This is not an extravagant statement. There is enough raised from the farm beside the butter and cheese to supply all the family necessities, except the clothing. Thus you see if a man owns his farm he advances over \$1,000 a year.

The wool-raising business, with the increase well managed, in many cases yields even better returns, and I have known of scores who have made themselves well off by raising cattle.

There have been more estimates published in the *N. E. Farmer* on raising corn than any other of the grains. I consider it the best grain crop raised in Berkshire, for two reasons: In the first place the farmer makes an extra outlay, prepares his land better than for other grains, manures

well, and secures a good crop; and secondly, his land is prepared for several future good crops.

I propose an estimate for three years, two acres of land under my own management. The land is good land, clay loam worth one hundred dollars per acre.

## FIRST YEAR.

|                          |               |
|--------------------------|---------------|
| Use of land.....         | \$12,00       |
| 40 loads of manure.....  | 40,00         |
| Drawing Manure.....      | 9,00          |
| Plowing two acres.....   | 3,00          |
| Harrowing two acres..... | 2,00          |
| Planting two acres.....  | 3,00          |
| A-shes and plaster.....  | 3,00          |
| Hoeing three times.....  | 9,00          |
| Harvesting.....          | 12,00—\$93,00 |

## PRODUCTS.

|                                       |               |
|---------------------------------------|---------------|
| 130 bushels corn at 80c per bush..... | \$104,00      |
| 4 tons stalks, \$5 per ton.....       | 21,00         |
| 4 loads pumpkin, \$1 per load.....    | 4,00—\$132,00 |
| Profit.....                           | \$39,00       |

## SECOND YEAR.

|                            |              |
|----------------------------|--------------|
| Use of land.....           | \$12,00      |
| Plowing two acres.....     | 3,00         |
| 6 bushels oats.....        | 3,00         |
| Harrowing and sowing.....  | 3,00         |
| One bushel grass seed..... | 3,50         |
| Harvesting oats.....       | 5,00         |
| Threshing oats.....        | 7,00—\$36,50 |

## PRODUCTS.

|  |               |
|--|---------------|
| 150 bushels oats, at 50c per bush..... | \$75,00       |
| 3 tons straw, \$5 per ton.....         | 15,00—\$90,00 |
| Profit.....                            | \$54,50       |

After harvesting the oats, plowed under the stubble in August, cultivated well, and sowed 1 bushel of Timothy seed.

## THIRD YEAR.

|                    |              |
|--------------------|--------------|
| Use of land.....   | \$12,00      |
| Plowing.....       | 3,00         |
| Harrowing.....     | 2,00         |
| Cutting grass..... | 4,00—\$21,00 |

## PRODUCTS.

|                                 |         |
|---------------------------------|---------|
| 4 tons hay at \$10 per ton..... | 40,00   |
| Profit.....                     | \$19,00 |

In the above statement, the price of labor is one dollar a day, the manure just what it cost, the corn and oats were measured and hay estimated and sold. Now I ask, is there anything extravagant in the estimate or crops? I say, no. The land was good and well cultivated, and was better off at the end of three years. The receipts paid all interest for land, labor, and \$112 besides, or equal to 24 per cent. for capital invested.

The above shows the advantage of good culture, and this is the only way to make farming pay well. Poor farming never pays, nor any other business, poorly attended to.

Some may think the foregoing crops are large, but they are not. We have farms that do better. The Berkshire Agricultural Society awarded this season the first premium on corn, weighed and sworn to, 120 bushels; on oats 116 bushels, [was this on two acres?—ED.]

Your correspondent speaks of a failure of corn and other crops. There has not been an entire failure of the corn crop since 1816. There have been partial failures, but not often. A short crop is generally as profitable to the farmer to sell, as a full one, and sometimes more so; so with potatoes, as many have testified, on the North River, where they raise potatoes to sell in market. When one-half of the potatoes rot, the other half brings more money than the whole would, if they had not rotted, and this is more or less the case with

all crops. Take, for instance, fruit. In 1859 apples were short, and worth \$1 per bushel; in 1860 plenty, and you could buy them at the orchard for twenty-five cents. Therefore I would contend that the farmer may be rich enough. There is no profit in getting rich, when the whole man must be sacrificed for it—time, thoughts, family and everything, made subservient to this one idea. But he who owns the soil, knows that his business is reliable for a good living, brings health and vigor to the body, and elevates the mind. He is free from the cares and anxieties that perplex other men, he is interested in sunshine and showers, in the changing seasons; he sows the seed and gathers in the golden harvest as the reward of toil, and helps to furnish bread to the teeming millions who are dependent upon the success of the agriculturist.

BERKSHIRE.

Lanesborough, 1861.

PATRIOTIC BIRDS.—Capt. N. G. B. Dexter has on his premises in Dexter Street a bird-house which is occupied by a pair of barn swallows. One day last week his servant girl left a piece of red ribbon on the sill of a window which was open, and during her absence from the room a few minutes it mysteriously disappeared and could not be found. In the course of the day it was discovered waving from one of the upper windows of the bird-house, making quite a respectable looking flag for such an establishment and its occupants. Not much was thought of the circumstance, and when evening came the flag or ribbon had disappeared.

This could be accounted for by supposing that it had blown away, but on the flag re-appearing the next morning curiosity was excited, and a watch established the fact that the birds pulled the flag into the house every evening and put it out every morning. Several persons have witnessed the operation. How the birds have fastened the ribbon to their residence is not known, but it is secure there. The housing of it for the night and the exposing of it to the breeze in the morning had continued about a week when we last heard of the patriotic doings of these little birds.—*Pawtucket Gazette*.

## GEOLOGY AND NATURAL HISTORY OF MAINE.

—We learn, says the *Journal*, that Charles H. Hitchcock, of Amherst, son of Prof. Hitchcock, has been appointed State Geologist for Maine. Mr. Hitchcock, though a young man, is well read in geological science, and bids fair to rank with the first geologists of the age. Dr. Holmes, editor of the *Maine Farmer*, has been appointed State Naturalist. The gentlemen with their assistants will commence their labors in June. In August they propose to make an exploration of the northern section of the State through the uninhabited section. They will be accompanied by a party of gentlemen who intend to try the mountains and forests and camp life as a means for recovering health. It is intended that the survey shall be most thorough, that the mineral resources of the State may be more fully developed.



For the New England Farmer.

### BEDDING CATTLE AT NIGHT---CATTLE DISEASE---THE WAR---CROPS.

MR. EDITOR:—The annexed letter from the "Wilmington farmer," written in reply to an inquiry about bedding of cattle, will sufficiently explain itself, and be instructive to farmers generally. If you should think proper to use it in any way, it is at your service; only return the original to me by mail. I know no man better qualified to express an opinion on this question than friend Sheldon. As to the other opinions he expresses, they will be valued according to the tastes of the readers; they accord with my notions.

JOHN W. PROCTOR.

South Danvers, June 6, 1861.

Wilmington, June 5, 1861.

FRIEND PROCTOR:—I thank you for your kind and friendly criticism on my statement at a discussion at the State House, that I had rather my oxen would travel twenty miles a day and have a good bed of litter or straw at night, than to travel only fifteen miles per day, and be made to lie on a naked floor.

Now I say to you, what I am willing to say to all men, and it is the result of long experience, it is my rule in cold weather to bed my working oxen with straw or poor meadow hay; when there is no danger of freezing, sand or loam are as good; these should be made smooth every night, and sometimes in hot weather sprinkled with water.

Men and oxen are made of flesh, blood, bone and sinew; both derive growth and strength from the same mother earth; both drink at the same spring of water, and both live under the government of the same God. O, that man would treat with kindness the faithful ox, that labors through life to do his master's will, and at the end gives himself up to feed the human family.

It might be some satisfaction to you if I should give some proofs in favor of my opinion. In 1835, I had in my employ in Boston 120 working oxen; in the summer months they travelled nineteen miles per day, beside turning at each end, which made in all twenty miles; they had their bed made every night. Now can as many oxen be found that will travel fifteen miles per day on pavements, lie on a naked floor, and stand it through the summer months? I have, too often, seen the skin off and blood flowing, even from near the stifle joint, caused by the ox lying on the bare floor! I know, from experiment, the cow will give more milk with straw for a bed than with a hard floor, other things being equal. Do you think Washington could have rested quietly at night, if he had thought the noble horse that served him in the battle of the day was compelled to try to rest his bended knee on a hard floor? I hope that Banks, Butler and other officers serving in the glorious cause of our country, have too much feeling for the horse to allow him to lie on a hard floor.

In regard to your inquiries about the cattle disease, I have had but one mind about it. I think it originated in over feeding, and if what we have suffered from it will teach men of Massachusetts to refrain from over feeding and from going to Europe to buy cattle at ten times their

worth, we shall have nothing to fear from the disease.

As to the war, I look at the prospect of the country as better than it has been for some years past. During Pierce's administration the country received a great national bruise; under Buchanan it matured to a great national sore; at Lincoln's election it broke out. Wise men at Washington are taking every wise measure they can to probe this great ulcer, and being backed up by Union-lovers and the wealth of the country, I fear not but before Lincoln's term expires, this sore will be purified and healing.

I believe it the duty of every farmer to plant such things as his land is suitable for, so long as manure can be found about his premises. After the farmers have planted and cultivated all they can with best skill and judgment, (in answer to your inquiry concerning the same,) I say let them come together in the name of an agricultural society and cattle show, and exhibit their flocks, the products of the earth, such as He who governs all things has blessed them with, and hold a day of rejoicing. God demands it of us. Be sure and waste no powder on the Fourth of July! Yours truly,

ASA G. SHELDON.

For the New England Farmer.

### THE BIRDS OF NEW ENGLAND---No. 13.

#### WARBLERS.

Water Thrush—Golden Crowned Thrush or Oven Bird—American Tit Lark—Bluebird.

In the extensive and very interesting family *Sylviadeæ*, to which we have now arrived, we meet a very numerous group of small but exceedingly active and interesting species. They are nearly all migratory, some passing even from tropical countries where they spend the winter, to high northern latitudes to pass the breeding season, and are thus transient visitors in New England, while a few only are residents, and the majority only spend with us the warm season of summer. Subsisting almost wholly upon insect food, no mischievous depredations on the products of the agriculturist can be laid to their charge; many, and even most of the species, possess agreeable songs, and none are guilty of any misdemeanors that need to remove them from our affections. Although there are strong mutual resemblances attaching to all the members of this large group, there is yet a great diversity in the peculiar habits of different species, and consequent modifications of form, upon which are based the numerous subdivisions.

In the genus *Seiurus* of Swainson are found several American birds that exhibit in their economy a curious combination of some of the characteristics of the Thrushes and Warblers, with each of which they are often classed, and also are much allied to the Larks (*Anthi*) and the Wag-tails of Europe, thus strongly resembling in general characters the *Motacillanæ*, under which sub-family they are now noticed.

The WATER THRUSH, (*Seiurus aquaticus*, Swain.) or *New York Aquatic Thrush*, is not a very numerous species in New England, yet is frequently met with in May, while migrating generally near streams or ponds of water; it at all times exhibits a peculiar partiality for watery sit-

uations, as its name indicates, and may frequently be seen wading in shallow water, busily searching for aquatic insects which constitute its food, continually wagging its tail, and is generally quite shy. The greater part pass on to the northward to breed; and it has generally been supposed that none pass the summer in Massachusetts, yet in this vicinity I met with a very few individuals both in June and July of 1860; but it seems to be a rare species in all the Northern States, except while migrating and even then is not numerous. "The cane brakes, swamps, river shores and deep watery solitudes of Louisiana, Tennessee and the Mississippi Territory," observes Wilson, "possess them in abundance; they are eminently distinguished by the loudness, sweetness, and expressive vivacity of their notes, which begin very high and clear, falling with an almost imperceptible gradation till they are scarcely articulated." The voice of this little bird appeared to me so exquisitely sweet and expressive that I was never tired of listening to it, while traversing the deep-shaded hollows of cane-brakes where it usually resorts."

The Water Thrush is six inches in length, and nine and a half in alar extent; whole upper parts, a uniform dark olive; lower parts, white, tinged with yellow, the breast and sides spotted and streaked with very dark brown; a white line extends over the eye.

The GOLDEN-CROWNED THRUSH, (*Seiurus aurocapillus*, Swain,) well known in many sections as the *Oven Bird*—a name given it from the form of its nest—and is quite abundant in the woodlands of New England, and is said to be generally diffused over the United States. It arrives from the south early in May, it wintering in Mexico, and soon its familiar repetition of *peche, peche, peche*, reiterated rapidly, with great energy and shrillness resounds through the woods, awaking the distant echoes. This bird is entirely confined to the woods, and while searching for food, runs along the ground like a Blackbird or Lark, gathering worms and various kinds of insects from the low plants, almost continually wagging its tail, and occasionally mounting a low limb to deliver its spirited lay. It takes great care in secreting and constructing its domed nest, which is placed on the ground, and when disturbed employs all the arts nature has so amply bestowed upon it to entice the intruder from the spot, fluttering along before him with drooping wings, as if wounded and hardly able to crawl, and if unsuccessful in its stratagems, manifests the greatest distress, and sympathizing neighbors of its own species join in the alarm. It is exceedingly solicitous for the welfare of its young, and thus the Crow Blackbird exhibits an instinctive choice in so frequently selecting this bird as the foster parent of its young.

The Golden-crowned Thrush is six inches in length and nine in alar extent; whole upper parts, fine yellow olive, except the crown and hind head, which are orange; beneath, white, the breast marked with pointed spots of black, or very dark brown; a narrow ring of very pale yellow, or yellowish white, around the eye.

The BROWN LARK or AMERICAN TIT LARK, (*Anthus Ludovicianus*, Bonap.) is only found in New England for a week or two in October, and again in May, during its passage from the colder

to the warmer parts of the continent, and *vice versa*. It seems to be a superlatively migratory species, passing the winter in Louisiana and countries much farther to the south, even as far as Brazil, in South America, arriving in New England in May in small parties, for a few days frequenting newly-plowed fields, and passing on, probably to remote northern parts, to breed. They sometimes collect in large flocks while frequenting the rice grounds and corn fields of the Southern States. In the fall I have observed flocks of a hundred or more in this locality, feeding and running about on the plowed fields, or searching the banks of ponds and streams for aquatic food; they fly high and rapidly, and often make several extensive circles before alighting.

The Brown Lark is six inches in length and ten and a half in extent; above, brown olive, with shades of dusky; beneath, pale brownish; the old males said to be slightly roseate during the breeding season. While running about on the plowed lands they can hardly be distinguished from the inequalities of the surface.

The BLUE BIRD, (*Sialia Wilsonii*, Swain,) is the most pleasing, the best known, and I doubt not I might truthfully add, the best loved of all our birds. His amiable and pleasing manners; his confidence in man, taking up his abode under his immediate protection; his affectionate disposition to his mate and young, manifested in his exquisitely agreeable warblings and gestures so full of love; his wholly inoffensive habits; his early arrival in spring, pouring forth his inspiring melody over the snow dappled fields, and boldly braving the last rude blasts of retreating winter, till he has won the title of "the harbinger of the vernal season," the herald of that delightful period of opening buds and the return of the balmy southern breezes, all combine to place him deeply in our affections; and when old winter gradually relaxes his icy hold, and milder airs awaken in our minds thoughts of spring, it is with no small degree of interest that the arrival of the first Blue Bird is inquired after, and what a thrill of pleasure is aroused within us as his familiar note again strikes the ear!

The Blue Bird is our true representative of the ROBIN REDBREAST, of Europe, (*Erythuca rubecula*), which he closely resembles in manners, and in the esteem in which he is held, and, as the great pioneer in American ornithology has expressed it, "had he the brown olive of that bird instead of his own blue, could scarcely be distinguished from him." Scientifically considered, there is so great a mutual resemblance between them that they have been placed in the same subfamily (*Saxocolinae*), of the *Sylvialae*, and even in the same genus (*Erythuca Sialia*), which is the only genus in our fauna that will represent this group (*Saxicolinae*).

The Blue Birds are found over the greater part of North America, and on the southern continent as far south as Brazil, and also inhabit many of the adjacent islands; many winter in the Southern States and in Mexico. Two other species of Blue Bird are also found on this continent; the Arctic Blue Bird (*Sialia arctica*) rather larger than the present species, but otherwise resembling it, inhabiting the Fur Countries, Rocky Mountains and adjacent regions; and the Western Blue Bird, (*Sialia occidentalis*), but scarce-

ly larger, inhabiting North California and Oregon.

The beautiful lines of ALEXANDER WILSON, composed in tribute to our own loved BLUE BIRD I can not refrain from transcribing in this connection; "I have often regretted," he observes, "that no pastoral muse has yet arisen in this western, woody world to do justice to his name, and endear him to us still more, by the tenderness of verse, as has been done to his representative in Britain, the Robin Redbreast. A small acknowledgment of this kind, I have to offer, which the reader, I hope, will excuse as a tribute to rural innocence.

"When winter's cold tempests and snows are no more,  
Green meadows and brown furrowed fields reappearing,  
The fishermen hauling their shad to the shore,  
And cloud cleaving geese to the lakes are a-steering;  
When first the lone butterfly flits on the wing,  
When red glow the maples, so fresh and so pleasing—  
O, then comes the blue-bird, the herald of spring!  
And hails with his warblings the charms of the season.

"Then loud piping frogs make the marshes to ring;  
Then warm glows the sunshine, and fine is the weather;  
The blue woodland flowers just beginning to spring,  
And spice-wood and sassafras budding together:  
O, then to your gardens, ye housewives, repair,  
Your walks border up, sow and plant at your leisure;  
The blue-bird will chant from his box such an air,  
That all your hard toils will seem only a pleasure!

"He flits through the orchard, he visits each tree,  
The red flowering peach, the apple's sweet blossoms;  
He snaps up destroyers wherever they be,  
And seizes the catiffs that lurk in their bosoms;  
He drags the vile grub from the corn it devours,  
The worms from the webs, where they riot and welter;  
His songs and services freely are ours,  
And all that he asks is—in summer a shelter.

"The plowman is pleased when he gleams in his train,  
Now searching the furrows,—now mounting to cheer him;  
The gard'ner delights in his sweet, simple strains,  
And leans on his spade to survey and to hear him;  
The slow, lingering school-boys forget they'll be chid,  
While gazing intent as he warbles before them,  
In mantle of sky-blue, and bosom so red,  
That each little loiterer seems to adore him.

"When all the gay scenes of the summer are o'er,  
And autumn slow enters, so silent and sorrow,  
And millions of warblers, that charmed us before,  
Have fled in the train of the sun-seeking swallow;  
The blue-bird, forsaken, yet true to his home,  
Still lingers, and looks for a milder to-morrow,  
Till, forced by the horrors of winter to roam,  
He sings his adieu in a lone note of sorrow.

"While spring's lovely season, serene, dewy, warm,  
The green face of earth, and the pure blue of heaven,  
Or love's native music have influence to charm,  
Or sympathy's glow to our feelings are given,  
Still dear to each bosom the blue-bird shall be;  
His voice, like the thrillings of hope, is a treasure,  
For, though bleakest the storm, if a calm he but see,  
He comes to remind us of sunshine and pleasure!"

Springfield, April 1, 1861. J. A. A.

**MUSCULAR POWERS OF SOME BEETLES.**—Of the muscular power of insects, Mr. Gosse gives two remarkable instances. The first performer he mentions was the *Oryctes maimon*, a three-horned beetle, larger than any English species, though perhaps not so long as some specimens of the stag beetle. "This insect has just astonished me by a proof of its vast strength of body. Every one who has taken the common beetle in his hand, knows that its limbs, if not remarkable for agility, are very powerful, but I was not prepared for so Samsonian a feat as I have just witnessed. When the insect was brought to me, having no box immediately at hand, I was at a loss where to put it until I could kill it; but a quart bottle full of milk being on the table, I clapped the bee-

tle for the present under that, the hollow at the bottom allowing him room to stand upright. Presently, to my surprise, the bottle began to move slowly, and glide along the smooth table, propelled by the muscular power of the imprisoned insect, and continued for some time to perambulate the surface, to the astonishment of all who witnessed it. The weight of the bottle and its contents could not have been less than three pounds and a half, while that of the beetle was about half an ounce; so that it readily moved a weight 112 times exceeding its own. A better notion than figures can convey, will be obtained of this feat, by supposing a lad of 15 to be imprisoned under the great bell of St. Paul's which weighs 12,000 pounds; and to move it to and fro upon a smooth pavement by pushing within."

## EXTRACTS AND REPLIES.

### INJURED APPLE TREES.

Four years ago last April, I set one acre of land to apple trees of different varieties. In the middle of the lot I set two rows of Baldwins, which have grown vigorously, and appear to be healthy, forming large, handsome tops, and many of them have borne fruit, but this spring all my Baldwin trees, except three, have been severely injured from the cold weather of last winter, or some other cause, which I cannot account for. A few of them partly leaved out, and then seemed to wither and dry up. On part of them the buds began to swell, but have not leaved out as yet. I have dug about the roots, but cannot find anything but what seems to be right; the roots and trunk appear to be healthy and full of sap. I have spent many pleasant hours in hoeing and washing my trees to destroy insects, &c., but they look so unnatural now that I care but little about visiting the orchard at all. If you or your contributors can give me any information as to the cause of this trouble, you will do me a favor for which I shall be ever grateful. E. LEONARD.

New Bedford, June 3, 1861.

**REMARKS.**—We can well appreciate the feeling of disappointment which brother Leonard expresses under the loss of his favorite trees. He who has not planted and tended with assiduous care, through many years, will be a stranger to such feelings. An equal money loss would be comparatively trifling. We hear that Baldwin trees are injured or destroyed in various sections of New England. Whether by climatic influences or by some local cause, we cannot say without seeing the trees.

### DISEASE AMONG LAMBS.

I noticed in the *Farmer* of June 1 a new disease among lambs, which has troubled our flock this spring. The symptoms are swelled necks or throat, and snuffing at the nose and laboring hard to breathe. We have had about forty-five per cent. of our lambs affected in this way this year, and some other flocks were affected in like manner. I cannot agree with Mr. Bachelder as to the cause; he says it is too close confinement. But that is not the case with ours, for they have

good warm sheds facing the south and east, and the liberty of the yard. We wintered thirty good healthy sheep; gave them, per day, two feeds of good hay, feed of straw, and one-half bushel potatoes until the 1st of March, when we gave them about 12 quarts of meal, consisting of one-half rye and oats, one-half wheat bran. Now if you or any of your numerous readers can give the cause, and also a remedy, you will oblige

Newark, Vt., June, 1861. J. S. & J. M. S.

#### HOW TO MAKE GOOD SOAP.

I wish to inquire through the columns of the *Farmer*, what is the best receipt for making soap with potash. If you or any of your subscribers will give what you consider the best, you will oblige

A SUBSCRIBER.

#### TO MAKE BOILED SOAP.

REMARKS.—First ascertain how much clear grease you have, and to each pound of grease add one pound of potash. Break the potash into pieces, place it in the kettle, add a little water and then as many pounds of grease as there are of potash. When they are dissolved, add cold water as the mass boils up, until the kettle is full. Twenty pounds of potash and twenty pounds of grease, will take up water enough to make about a barrel of excellent soap.

#### TO MAKE COLD SOAP.

Break twenty pounds potash and put it into the barrel. Heat twenty pounds grease and pour upon it; upon that pour two pails of boiling water. Stir it thoroughly together, and afterwards add one pailful of boiling water, daily, until the barrel is full. Care should be taken to use the light-colored potash, as soap made from a *dark-colored*, or *reddish* potash will color the clothes.

#### A DOG POWER.

Do you know of any machine in which a large dog can be advantageously used to work a churn, either a crank or dash churn? If so, will you please inform me through the *Farmer*, together with the price, and where it can be found.

GEORGE W. NICHOLS.

East Barre, Vt., May, 1861.

REMARKS.—A good "Dog Power" can be found at Nourse & Co.'s, 34 Merchants' Row, Boston. Price \$15,00.

#### DRIVE PIPE FOR A HYDRAULIC RAM.

I saw in your June number an inquiry for a "drive pipe for a hydraulic ram." I conclude that the inquirer has used lead pipe for that purpose, and that it has failed. That it would fail to stand the shocks necessary to the pressure dependent on the height of the column he states, any engineer would at once see, and not apply such a material for that purpose.

I would recommend him to use the galvanized iron pipe, which will sustain a pressure of 200 pounds to the square inch. It will cost about 35 cents per foot, and can be procured of any of the dealers in steam and gas pipes.

These pipes are fast taking the place of lead

and tin for the conveyance of water. I have one in my house, for my pump, which has been in use four years, and is perfectly good and sound now. I had block tin pipes previously. In four years I wore out two of them on the same pump and in the same place. They can be attached as easily by soldering as lead or tin. AN ENGINEER.

Boston, June 5, 1861.

#### TEMPERATURE OF THE MONTH OF MAY.

I was informed by Mr. Lamson, of Salem, this morning, that the average temperature of the month of May just ended, was only one degree colder than the average of the same month for the last twenty years. I was surprised to hear this—but still I know there is no man among us whose observations are entitled to so much credit as those of Mr. Lamson. Since the death of the venerable Dr. Holyoke, no man in Salem has so faithfully recorded the temperature, and the fall of rain, &c.

P.

June 1, 1861.

For the *New England Farmer*.

#### EDUCATION OF THE FARMER.

MR. EDITOR:—The occupation of the farmer, as well as of the mechanic, requires study and thought. He who can construct and set in motion the most complicated kind of machinery, has won no greater merit than he who has been for years the most successful farmer. Although the one may have gained a reputation abroad, he has had to look to the other for his sustenance. The education of the farmer should be a practical one. It should be one which will give him a knowledge of the soil which he is to cultivate; of the different kinds of land, which he may have to enrich yearly, with that which is best adapted to its wants. In order to understand his calling, and make it profitable, it is necessary that everything should be done in a thorough and workman-like manner. The idea is often advanced, that the educated farmer meets with no better success than he who has spent but a few months in the pursuit of knowledge. If this is the case, sometimes, it is, doubtless, because his education is not practical enough. He was educated for some other calling, but failing in this, he has chosen the occupation of the farmer. But he is again liable to fall into errors in this situation, as he may have spent little or no time considering the many duties the farmer may have to perform. His plans are all made to rest upon his education for a basis. One reason why so many of the young men at the present day are desirous of entering upon some easier employment, as it is often termed, is because they have not been able to learn the many interesting facts connected with the farm.

Instead of the many works of novel writers, which are circulated through our country, there should be distributed a collection of reading matter, which might not only amuse, but instruct those of all employments. Books and papers of information should be brought home to every fire-side. There seems to be no reason why the farmer cannot gain a good education. He has evenings throughout the winter season, wherein he might gain much valuable information for himself, and impart much useful knowledge to his children.

S. A. S.

*For the New England Farmer.*

### BEE-HIVE IMPUDENCE.

I read a communication in the *Farmer* of May 18, from one Mr. Brackett, headed "Straw Bee-Hives," in which he says the best part of my patent hive was stolen from Mr. Langstroth's hive. The charge I emphatically deny. I suppose he has reference to the movable comb guides, or frames, of which my hive is supplied. I am aware Mr. L.'s hive contains rather an ill-shaped frame, some eighteen inches long by seven inches wide, quite different, however, in both style and construction from the one I make use of. The movable frame seems to be the principal, and, in fact, the only point about the Langstroth hive that is worth a penny. I purchased the Langstroth hive in 1855, and probably have had as good an opportunity of testing its qualities as any other man, as but few of those hives were introduced prior to that date. Perhaps Mr. B. is interested in the sale of the Langstroth hive, and to this may be attributed the reason why he has made such an unceremonious attack upon the Kidder hive, when in fact he has never used it, and probably has never seen one in use. It is a way some persons have of introducing, or recommending their favorite machine or instrument, to swear vengeance against everything else, and Mr. B. undoubtedly has caught the complaint. He says he is not tickled with Mr. Quinby's straws; perhaps he may be tickled with a communication from Mr. Quinby, published in the *Rural New-Yorker*, of Dec. 18, 1858, wherein he says, "That he had a large number of the Langstroth hives in use, and two-thirds of the swarms that were put into the hives built their combs in every possible direction, without any regard to the frames, making them, so far as movable combs were concerned, no better than a common hive." He also adds, "that the frames were worse than useless, and parties that had purchased the Langstroth hive, had lost both time and money, and at the same time recommends the use of the common hives in their stead."

Should Mr. Brackett wish for any more testimony in reference to Mr. Langstroth's hive, or like to know the real difference there is in the two hives, he can have the information, (or any other Bee-Keeper, should he desire it,) free of charge, on the receipt of his post-office address.

*Burlington, Vt.*

K. P. KIDDER.

**CATERPILLARS ON THE GOOSEBERRY AND CURRANT.**—My currant and gooseberry bushes, some years since, were largely infested with caterpillars, especially the former. In many cases they denuded the bushes entirely of leaves, and as a consequence destroyed the fruit. After repeated experiments, I resolved to try quick lime, which I found to answer the purpose admirably. My plan is as follows:

In the morning, before the dew has disappeared or just after a shower, I dust the bushes with quick lime, using for the purpose, a dredge, like a common flour dredge, only that the holes are larger. I apply it usually about the time the bushes are expanding their foliage, repeating the operation every four or five days, until the caterpillar season is over. If the weather is very dry,

for a length of time, I sprinkle the bushes with water, before applying the lime.—R. TURNER, in *Farmer and Gardener*.

### CLEARING FIELDS BY BURYING STONES.

An exchange has the following on the above subject:

"With regard to the disposal of stones, I think there is one rule of universal application, which is this: On all land that is not so rocky underneath as to make digging expensive, never take a stone that is not wanted for wells, or for some other special purpose, but dig holes and place them in so that they shall not come nearer than eight or ten inches of the surface. This can be done as cheaply as they can be carted off and piled up in some other place. There are, at least, four advantages in this process.

1. The surface is relieved of them, so that they are out of the way in cultivating.

2. If not too far below the surface, they attract moisture, and are especially valuable where deep-rooted plants are cultivated in times of drought. Fruit trees flourish finely over them.

3. They are storehouses of heat, warming the soil about them and the young roots that penetrate it, and acting like bottom heat in a forcing-house.

4. So much of the land as is dug over to receive the stones, is thoroughly trenched, and will feel its influences for many years, whether it is cultivated or kept in grass."

We object to articles like the above, and believe that the writers are doing serious injury to after generations, by suggesting such wasteful painstaking. The idea of burying stones, and at eight or ten inches from the surface, so as to prevent full surface plowing, and to entirely do away with the possibility of easy subsoil plowing, cannot be endorsed. The surface should be relieved of them by their removal, unless they can be placed in under-drains immediately, and at least to a depth of thirty inches below the surface. As to their attracting moisture when at the proper depth, this they will do by extracting it from the soil. We do not believe that a soil full of stones is any better for fruit trees than one without them. Nor do we believe that stones should be viewed as storehouses of heat, warming the soil about them, etc., for they only become heated by cooling the soil. The fourth item of the above, however, we fully believe in, viz., "that the digging of the soil for the removal of stones, or for any other purpose, materially benefits it.—*Working Farmer*."

That portion of the above article commented upon by the *Working Farmer*, was written by us and published only two or three weeks since, in this paper. It was prompted by an actual experience of many years, is sound in doctrine, and an article that we have no desire to recall. If agricultural editors would spend more of their time in the fields and less in the closet, their teachings would be more reliable than they now are.

In the first place, we are charged with "wasteful painstaking," for stating that it is as cheap to

sink stones that are not wanted for other purposes, as to dig, cart and haul them off on a drag. On all such land as we specially defined, there is not one operator in ten, in our knowledge, but will agree with us. It has been so decided in some of the best farmers' clubs in New England.

Our first postulate was, that when sunk, they are out of the way on the surface. Who will deny that? The second, that rocks below the surface are especially valuable where deep-rooted plants are cultivated in times of drought. If the learned editor of the *Farmer* had dug as much as we have on a rocky soil, he would have learned what most boys of eighteen know, on our rough farms. Fruit trees do not flourish half as well on our soils without stones as they do on the rocky lands. That is the common opinion here. Thirdly, buried rocks are store-houses of heat. If a stone is placed upon a coal fire it becomes heated—let both remain for a time and the coals will be ashes, or black and cold, while the stone remains too hot to be touched. So the rock in the soil stores up the solar heat, and imparts it so much more slowly than the loose, surrounding soil, that it is actually a storehouse of heat. The stones below are valuable in other respects. The rains reach them, dissolve some of their mineral matter, and prepare it for the use of plants. The roots themselves understand this better than theorists, as is evident by their clustering in great numbers about stones which are beneath the surface, where they not only find food, but moisture and warmth. The Professor's idea of subsoiling on a large portion of our farms, we think erroneous. On such land as we referred to, one might as well think of subsoiling on the peak of the Grand Monadnock itself; the very difficulty of the sinking of stones is generally that of digging the holes, obstructed as the spade often is at every blow.

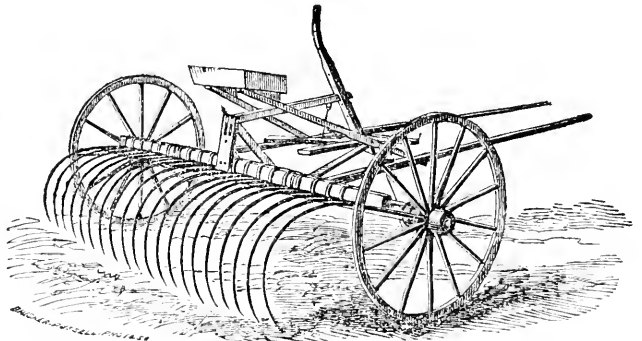
We always read the *Working Farmer* with pleasure, and we believe with profit, and quite often illumine our columns with the clearly-expressed thoughts of its editor,—but we cannot recall deliberately-expressed opinions, which have been formed upon actual manipulations extending through many years, founded upon philosophical principles, and sanctioned by the best farmers in our knowledge.

**BRITISH TAX ON HORSES.**—The number of horses taxed in Great Britain last year was 288,706 riding horses, and 1,499 race horses. The revenue raised amounted to \$2,000,000.

#### DUNCAN'S NEW HORSE RAKE.

Next to a good mowing machine, there is scarcely any implement for the farm now so much needed as a *good Horse Rake*. One that may be sold at a price so moderate as to enable all farmers to purchase it,—that will be substantial,—so as not to be constantly out of repair,—and that is of light draft for the horse, and so easily wrought that it may be managed by an elderly man or by a boy.

A few days since, we saw a new one at NOURSE, MASON & Co.'s ware-house, which seems to possess all these qualities. It has steel spring teeth, is set on low wheels, and is operated partly with a lever by the hand, and partly with a treadle by the foot, in order to raise the teeth and drop the hay. If it is desired to press the teeth closer to the ground, there is a treadle for the purpose close



by the side of the one for the foot already mentioned.

The whole rake is light, but well-made, of good material, and it seems to us will be a rapid and clean worker, while it will be easy for both man and beast to operate it. We have not tried it *in the field*, but have worked it on a large floor, where it promises well. It will be well for those about purchasing a horse rake, to look at this, at the ware-house already mentioned.

**EXPERIENCE WITH MUCK.**—In the summer of 1855 I had an upland lot, preparing for wheat or rye, and having no funds to spare for the purchase of guano, bone dust, &c., I concluded to try what could be done at home. With a team and a man we commenced drawing muck from a pond, and in four days had two hundred loads on two acres of ground. The ground was again plowed, thus mixing the muck, and on the 15th of September was sown with wheat. It was harvested the following July, and when threshed and exhibited at the County Agricultural Fair, received the premium for being the best wheat exhibited. The next season the lot was sown with oats, and such a crop was never raised on the old homestead, and all without any other manure.

This season we have put *eight hundred loads* on five acres, sown to wheat and rye, and expect

to be able to give you and the farming community as good a report, if not better, from the crops next summer. In addition to the above, on the first lot, we this summer cut, per acre, three tons of as good timothy hay as was ever housed, and up to this present writing the feed is good, and the cows easily fill themselves from it daily. Let every farmer, who can, try an acre with muck, and he certainly will be repaid four-fold.—*American Agriculturist.*

*For the New England Farmer.*

#### THE CULTIVATION OF INDIAN CORN.

DEAR SIR:—The following account of the early cultivation of "Indian Corn" in England, which I copy from the *Monthly Magazine* and *British Register* for 1796, may prove interesting to you.

L. E. KEYES.

*Salem, June 8, 1861.*

TO THE EDITOR OF THE MONTHLY MAGAZINE.

SIR:—At a time of so great scarcity, every hint which may have a tendency to increase the food of the laboring poor must be acceptable, and as several persons have, in the public papers, recommended the cultivation of Indian wheat, the following is a practical account of its cultivation in England. The land should be a loamy sand, very rich. In the beginning of April, the grains should be set like hops, at two feet distance, six or eight grains in a hill, each grain about an inch deep in the ground. The seed from New England is the best. In the beginning of May, the alleys should be hoed, and the hills weeded and earthed up higher. At the latter end of that month, all the superfluous stalks should be taken away, and only three stems of corn left in each hill. By the month of June it will cover the alley. It grows much like bulrushes, the lower leaves being like broad flags, three or four inches wide, and as many feet in length; the stems shooting upwards, from seven to ten feet in height, with many joints, casting off flag leaves at every joint. Under these leaves, and close to the stem, grows the corn, covered over with many coats of sedgy leaves, and so closed in by them to the stem, that it does not show itself easily, till there burst out at the end of the ear a number of strings, that look like tufts of horse hair, at first of a beautiful green, and afterwards red or yellow. The stem ends in a flower. The corn will ripen in September; but the sun of that season not having strength enough to dry it, it must be laid upon racks, or thin open floors, in dry rooms, and frequently turned, to avoid moulding. The grains are about as big as peas, and adhere in regular rows round a white pithy substance, which forms the ear. An ear contains from two to four hundred grains, and is from six to ten inches in length. They are of various colors, blue, red, white and yellow. The manner of gathering them is by cutting down the stems and breaking off the ears. The stems are as big as a man's wrist, and look like Bamboo cane, and the pith is full of juice that tastes as sweet as sugar. The joints are about a foot and a half distance. The increase is upwards of five hundred fold. Upon a large scale, to save the expense of hilling, the seed may be drilled in alleys like peas; and to save digging,

the ground may be plowed and harrowed, which will answer very well. It will grow upon all kinds of land. The ears which grow upon dry land are less, but harder and riper. The grain is taken from the husk by hand, and when ground upon French stones, makes an excellent flour, of which it yields much more, with much less bran, than wheat does, and exceeds it in crust, pancakes, puddings, and all other uses except bread; but a sweetness peculiar to it, which in other cases makes it agreeable, is here nauseous. It is excellent for feeding poultry and hogs, and fattens both much better and sooner than peas or barley. The stems make better hedges for kitchen gardens than reeds do. It clears the ground from weeds, and makes a good season for any other kind of corn. Piso, and other Spanish physicians are full of the medicinal virtues of this grain. It was the only bread corn known in America when first discovered by the Spaniards, and is there called Maize.

J. A.

*Leicestershire.*

*For the New England Farmer.*

#### TROUBLE WITH LAMBS.

MESSRS. EDITORS:—Some of our best breeders of sheep in this county are having a new, and to us, inexplicable trouble, this spring, with their lambs. Some of the facts in the case I will state, with the hope that you, or some of your correspondents, may be able to give us the cause, or, at least, to make some suggestions which may enable us to arrive at a conclusion in the matter. About the first of April last, I bought of one of our largest and most thorough breeders of Merino sheep, thirty-five ewes; they nearly all proved to be with lambs, and were in good condition. They began to drop their lambs the first of May, when I soon saw there was something wrong with them. Some would die in a few minutes, some in a few hours, and some would live two or three days.

By the greatest care and attention, I have succeeded in keeping twelve alive to the present time, though some of them are deformed, with crooked legs and backs. The lambs had no strength, hardly one of the whole lot could stand before it was two days old. They appear to be greatly lacking in bone, which is soft and immature, and when they begin to stand, their legs bend and grow crooked; in fact, there is nothing of them; they handle like a bundle of rags, and pant and breathe so hard as to be heard all over the barn.

The gentleman of whom I purchased the ewes is having the same trouble, or perhaps more severe and fatal. Out of a flock of thirty-one full-blood Merino ewes he has saved but five. From another flock of forty-eight he has saved but twelve. He attributes his disaster to feeding buckwheat, for he says that another flock which he had wintered in another town, to which was fed no buckwheat, he has been uncommonly successful with, having lost but one out of seventy-five. The same is true of what ewes I wintered myself.

Another large farmer in this town is having precisely the same trouble, losing nearly all his lambs. His ewes were fed with oats and wheat bran. Another thorough breeder, in an adjoining

ing town, is losing nearly all his lambs in precisely the same way. He thinks he may have kept his ewes too much confined through the winter in a tight, warm stable, where they were not allowed to run in the open air at all. The appearance of the lambs in all the above cases is the same, which leads me to think that the trouble is produced by the same cause, but what that cause is, I am at a loss to determine, as no one cause seems to account for the trouble in all the cases.

It is certainly something new in this vicinity, and any light which can be thrown upon the matter will be a great benefit to us, as sheep-raising is an important branch of husbandry in this State. I hope to hear from somebody.

R. WHITTEMORE.

*St. Albans, Vt., June 10, 1861.*

REMARKS.—We earnestly hope our friends who are engaged in sheep culture will consider this matter, and throw light upon it, if they can. From a remark in the above letter, we should be induced to give *bone meal* to the sheep at once, mixed with a little corn or oat meal.

#### GRASS, AND HAY-MAKING.

The cutting and securing the grass crop is a pleasant and interesting, though laborious, part of farm labor. The days are long and the sun hot; just what is needed to secure the crop in its best condition, but well-calculated to draw heavily upon the strength of the laborer. The observance of a few simple rules, therefore, will not only promote the comfort and preserve the health of many, but will actually result in the saving of life.

It is necessary, in haying-time, to rise early, where the grass is to be cut with a scythe, as it is cut much easier when wet with the dew than when it is dry. But in order to do this, long and severe labor should be avoided before breakfast. Before going to the field it would be well to eat a cracker or plain piece of bread, and drink part of a tumbler of water. If going to the field at four o'clock, as we practiced in earlier days, breakfast should be taken at six. This should not be in a hurried manner, with the whole thought devoted to the day's work, but in a quiet and deliberate way, and attended by pleasant conversation in relation to the business on hand, or other agreeable topics. The hands, face and arms should be washed in moderately cool water, and wiped "bright dry," before coming to the table. At ten, a light luncheon of plain bread, or simple fruit pie, and some cool drink, will be all that is necessary before the dinner at twelve. Tea may then be taken at five, which should also be light, compared with breakfast, even for men engaged in an exhausting labor.

When these simple rules are observed, especially those to be deliberate and quiet in every-

thing, the severe labor of haying may be gone through pleasantly, and without the slightest injury to the system.

It is now nowhere fashionable, to our knowledge, to take the morning glass of bitters, or to have the "eleven" and "four o'clock" dram in the field. It is undoubtedly used in moderation by some persons, but rarely, if ever, distributed among the men. It was once the custom to anticipate the important advent of the haying season, by gracing the larder with an extra supply of "crackers and cheese," "dry cod fish," "lemons," a jug of "old Jamaica rum," and from fifteen to thirty gallons of the real "New England critter," according to the number of hands in the family, and their thirsty predilections! Accordingly, "there were giants in those days," or at least, men thought themselves so, and what was sometimes unfortunate, they thought their teams of horses and cattle so, too, for their loads were occasionally left at the foot of the hill, or imbedded hub-deep in the black mud of the meadow!

Under present customs, haying is conducted more quietly, skilfully and effectually than it was under the spirit pressure.

#### TIME OF CUTTING, AND HOW TO CUT THE GRASS.

The average amount of land gone over by the mowers of New England, with the hand scythe, is not much, if any, more than one acre per day, and the average crop is not more than one ton per acre. If a man has twenty-five tons of hay to get, he will, on this average, have twenty-five acres to mow over,—making, at \$1,50 per day, the usual wages in haying time, \$37,50. To this his board is to be added for twenty-five days, say \$6,25, making \$43,75. There are mowing machines of recent construction or modification with which a man or boy may cut six acres per day, with ease, and cut it well, either with one or two horses, or a pair of oxen. It can be cut nearly at this rate in convenient parcels, say one or two acres at a time, so as to accommodate the hands that are to tend and get it in. This will cost for a man, four days, \$6,00—board, \$1,00—horse, \$4,00—interest on machine, one year, \$6,00,—making \$17,00, which, deducted from \$43,75, leaves a saving of \$26,75! But this is not all; there is the saving of spreading the grass, which the machine does as it cuts it, and the still more important item of cutting the grass rapidly when you are ready to tend it, or when the weather is favorable to make it into hay. To these may be added the consideration of transferring this hard work from man to beast, and this is especially desirable in many cases, where the farmer beyond middle life is not able to mow at all.

From this view of the case, it would seem that the farmer who has twenty-five tons of hay to se-



cure, would find it economical to use a mowing machine, even if he were obliged to borrow a portion of the money to pay for it. But a single machine may be owned and used without inconvenience by two contiguous neighbors, thus reducing the cost so much that nearly all may avail themselves of its advantages.

To the mowing machine should be added a good horse rake and a set of hay caps, and then the farmer is in condition to enter upon the annual campaign with great certainty of success.

The mode of making and securing hay is so general that the observance of a few simple rules seems to be all that is necessary. In order to get the sweetest and best hay, the grass should be cut very soon after the bloom first appears. It should not be allowed to remain long spread out in a hot sun—but when fairly wilted, so that upon taking it in the hand, some of the driest portions will snap a little, should then be thrown into high peaked cocks and covered with caps, if they are at hand. In this condition the cocks may stand forty-eight hours with decided advantage, and all that will be necessary afterwards, is to throw the cock open to the sun and air for three or four hours, when it will be in excellent condition to be carted in.

Grass cured in this manner will look green and bright, and will retain that peculiar aroma or fragrance, not less grateful to the taste of the cattle, than to the nose of their owner, when he enters the barn. It also retains its nutritious qualities entirely beyond that cut down, spread and suffered to remain upon the ground during eight or ten hours of two or three days. The farmer can easily test this for himself, by cutting two parcels of the same grass and drying them under the two processes we have mentioned, steeping them, and tasting the tea made from each. The Shakers, who prepare large quantities of herbs for market, esteem this matter of drying of so much importance, that they construct very large rooms for this special purpose, and would scarcely accept of sun-dried herbs delivered at their doors! They are an observing and shrewd people, conducting their business upon sound principles, so that their examples in business matters, at least, are entitled to regard.

It has become quite fashionable to salt hay as it is packed away in the barn, and we fear the practice is carried altogether too far. Many a ton of hay is taken in not much more than half cured, because there is a prospect of foul weather, and under the comforting thought that a peck of salt will be added in order to save it.

From their own natural desire, cattle will not take much salt during the winter, and we cannot believe it healthy to have it forced upon them mingled with the food which they must eat, or

starve. A small quantity of salt, not exceeding two or three quarts to the ton, may be useful—but more, we cannot think necessary, even if it be not hurtful.

Our hay crop is one of vast importance. Its aggregate value is very large, and although not exported to foreign countries—that is, rarely beyond the Kingdom of South Carolina or Louisiana—is of as much value expended in our midst as though sent abroad. It is, in fact, the basis of all our farm operations, the key-stone which sustains them and gives them all their success. The test of a farm is the number of cattle it feeds—and the cattle in turn feed the soil.

Let us, then, endeavor to secure this crop in its best possible condition, well-fitted to sustain the waiting herds that will seek it at our hands, when they return from the barren pastures in the fall.

For the New England Farmer.

#### AS YOU TRAIN IT, SO 'Twill GROW.

BY M. M. BASSETT.

Farmers, arise! the day is at hand,  
Plant the seed and till the land,  
Prune the vine, let it bud and blow—  
As you train it, so 'twill grow.

See you not where yonder tree  
Begs a helping hand from thee?  
Raise those branches drooping low—  
As you train them, so they grow.

Maiden, behold that beautiful flower;  
Bent low on its stalk by the last fierce shower,  
Raise it up from the dust below—  
As you train it, so 'twill grow.

Mother, a blossom far more pure,  
Is given to thy watchful care:  
Guard well the spirit, learn to know,  
That as you train it, so 'twill grow.

For the New England Farmer.

#### NUMBER OF SEEDS IN A BUSHEL.

MR. EDITOR:—Finding a diversity of opinion among farmers in regard to the quantity of seed necessary to stock a given quantity of ground, and thinking that some others as well as myself might be curious to know the number of grains in a bushel, and how many would fall on a given quantity of ground, I have made out the following statement with a tolerable degree of accuracy, by computation, after counting a small quantity of the several kinds mentioned.

Timothy seed numbers 41,823,360 grains to the bushel, and if sown on an acre of ground, as recommended by some, would give about  $6\frac{1}{2}$  to the square inch. Would not one be better than six? Clover, of medium size, what we here call Eastern clover, numbers about 17,400,960 to the bushel, and gives about  $2\frac{3}{4}$  to the square inch on an acre. Rio Grand wheat, fair and plump, numbers about 556,288 to the bushel, and gives about  $12\frac{3}{4}$  to the square foot. Rye numbers 898,880, and gives about  $20\frac{1}{2}$  to the foot.

Fairhaven, Vt., 1861.

H. BRIGGS.

*For the New England Farmer.*

### THE BUCKEYE MOWER.

MR. BROWN:—I notice in your paper of today a letter in regard to mowing machines which gives a false impression in regard to the Buckeye Mower.

By the letter you see that Mr. Shaw is very much interested in the Manny machine, although he says that he is interested in none. Now I propose to state a few facts which I can prove, and see how they compare with what he thinks are facts as he states them by his letter.

In the first place he *thinks*, does not say he knows from experience, that the Buckeye and another machine may do well upon perfectly smooth ground, but for uneven land the Manny is certainly the best of all.

Now, Mr. Editor, I know from experience that the Manny is one of the poorest machines for uneven and hilly ground, and that the Buckeye is one of the best, for these reasons, viz.:

The Manny is one of the poorest because it has but one driving wheel, (which also carries the machine from the ground,) and its finger-bar is fixed inflexibly to the main part of the machine, so that when a person is mowing around a steep hill, if he is not very careful, he will upset, for the driving wheel acts as a fulcrum, and should the driver be a very heavy man, and the hill steep, his weight is thrown to the left of the driving wheel, and should that side of the machine prove the heaviest, over he goes. I had a very narrow escape myself on a Manny machine last year in a case like that, and had it not been for a man throwing his weight upon the framework at the end of the finger-bar, I might not have had a chance to notice this letter.

Now take the Buckeye. You see it has two driving wheels, which carry the machine as they would a cart, and with no more chance of upsetting it than there would be a cart; and also please notice the arrangement by which the finger-bar is connected with the main part of the machine, viz.; the double-hinge joint, by which you see the bar works upon the ground equally as well, whether the machine itself is upon the same plan as the bar, or not. I have mown upon side hills with the Buckeye when a person who had never seen our work would have said, "you cannot mow there, I know," and have mowed it as well as though it were level ground, and felt in no danger of turning over. And for the same reason the Buckeye will cut the grass more evenly than the Manny, because the finger-bar is not liable to be raised, when the machine leans to the left, as the Manny is sometimes thrown when the left end of the cutter-bar may go over any little rise.

The bar to the Buckeye is gauged at pleasure, to run high or low, from the ground, by a wheel at the left end, and a narrow spring at the right end, so that it goes as they go, no matter how the machine may lean. I say that the writer of that letter is greatly mistaken when he says that "A Buckeye does not cut the grass of the same length from the ground at both ends of the bar." Another thing he says, that "the finger bar is not stout enough." I should like to ask him if he ever saw one that was bent while mowing, or in consequence of driving against a hassock or stump. I have driven my Buckeye against a tree

so that the finger bar hooked on to the tree at its extreme end, and let my horses, (which weigh 2100 lbs.,) do their best to bend it, and they could not. I did it to show its strength to some of my neighbors, who questioned its strength when it should go against any such thing. He asks, "Where would the Buckeye have been," if it had got into a hassock as did his Manny, which it took two horses and two men to pull out? I'll tell him; it would have gone through it and cut it off, and been several rods off cutting more like it. It seems he told his neighbor if he went over his piece a few times with his Manny, he would have no hassocks to trouble him, which advice, I think the neighbor would not call very good, if that was a fair sample of what it would do. Take notice, he says, he got stuck!

Again, he gives the impression that there is no reaping attachment to the Buckeye, which he will find is a mistake, if he will take the pains to inquire, as there is one which can be very easily attached to the mower.

One fact more; the present proprietor of the Buckeye was the owner of the Manny machine at the time of the greatest trial of mowers and reapers in the United States, at Syracuse, in July, 1857, and took his machine to the trial, as a competitor for the prizes. After he got there he soon found that the Buckeye was very much superior to his machine, and bought the patent right for certain States. After that he got rid of the Manny as he could. In a few days after the trial, the Buckeye received the first premium over at least six or eight other machines.

In conclusion, I will say that I should be very glad, and am anxious to meet any and all other machines, at any time and place where the merits and demerits of all can be seen, and know that I can show to an unprejudiced person that, everything considered, the Buckeye is best. Anything I have stated, I can prove, by the best testimony a man can ask. JAMES A. DRAPER.

*Wayland, June 15, 1861.*

### GARDENS FOR HEALTH.

On every side, we hear it said that American merchants, lawyers and mechanics are annually growing feebler, and becoming shorter lived, and all for lack of cheerful exercise in the open air. This fact becoming widely known, has led to the establishment of gymnasiums, boat-clubs, ball-clubs, etc., all over the country. For persons who can not get muscular exercise in any other way, this is all very well. But he who can get control of ground enough for a garden, will be much better off, and especially, if he own the garden. This pleasing occupation is far more healthful than wrenching gymnastics practiced by the clock, or the highly exciting and overtaxing exertions of boat-racing, and ball-playing. Morning and evening spent at home—pruning and hoeing and weeding and training—so employed, how can one help being happy and healthy? It would be an evil day for a man so situated, to hire a gardener to do all his work. What harm is there in a little sweat, a little dirt, and a few blisters, if thereby one keeps dyspepsia and ill health generally, at a distance?—*American Agriculturist.*

## EXTRACTS AND REPLIES.

## HAY CAPS.

Now is the time that we begin to think about hay caps, and I should like to know if there is any better kind than those I have used for a number of years. They are made of old sail cloth, cut in pieces five feet square, with a tarred string a few inches long in each corner, with a loop on the end which I fasten to the ground with a spike made of No. 4 wire. They will turn water to perfection, and the only fault I find, is their bulk, and weight. A hundred of them would make a cart load. They cost 40 cts. apiece, and are said to be worth about 25 cts. to manufacture into paper when unfit for use. I have tried cotton cloth, but do not think it worth much in a heavy shower.

H. T. GATES.

*New Worcester, June, 1861.*

REMARKS.—A hay cap made of good twilled cotton cloth, worth nine cents a yard, well put on the cock and properly fastened, will keep out water during a heavy shower or through a storm of several days. A cap of such material will cost about 40 cts., and a man can take along a hundred of them on a wheelbarrow. They need no oil or paint.

## MOWING MACHINES.

The season has again returned, when the question presents itself,—How can grass be most expeditiously and advantageously cut? I have heard some owners of large farms say they would use mowing machines no more, but should use the scythe, as in years gone by.

Is it come to this, that all the ingenuity applied in perfecting mowers has evaporated so soon? May not the fault be found otherwise than in the machine itself? No cutting implement can be expected to encounter stubble and stones. Let these be thoroughly cleared from the land, and let it be thoroughly rolled and levelled; and it will be safe to aver that one-half the labor of cutting can be saved by the use of a machine of best construction. Such is the experience of one who has taken much pains to be informed of the character and value of mowing machines.

*June 8, 1861.*

ESSEX.

REMARKS.—The experience of our correspondent may be confirmed by thousands. There are several machines now in use that a progressive farmer cannot afford to be without.

## ROSE BUGS ON GRAPE VINES.

Can you, or any of the readers of the *Farmer*, inform me what will keep the rose bug off of grape vines, or what will drive them off?

J. O. D.

*Bedford, June, 1861.*

REMARKS.—There is no certain preventive of the annual visitations of the rose bug upon our grape vines and other plants, nor anything in our knowledge that will certainly destroy or disperse them when they have visited us. Much may be done, however, to prevent their mischief, by attending to them when they first appear, by gathering and throwing them into a dish of hot water.

The women and children may essentially aid in this. After one or two years' close attention to them they will not appear in very large numbers. It is said that syringing the vine with whale oil soap will prevent their eating them, and that common soap suds will, in some degree. Our remedy is the thumb and finger.

## BLOOD IN BREEDING.

I have read with interest the remarks of Judge French on the "Principles of Breeding," and his notice of Mr. Goodale's work, which I have not seen. I have high respect for the intelligence and activity of Mr. Goodale, and doubt whether he or his work will slander the largest class of animals in our country, and those who speak in their favor. I know no other value to animals about a farm, than their products. And when I find an animal producing, like the Oakes cow, more and better butter in a year than any other cow, I think she is worthy of a better notice than to be dubbed a mere scrub. When a cow yields milk from which twenty pounds of butter can be made in a week, and this for several weeks together, I think she will bear comparison with any Durhams, Alderneys or Devons, even if she have no registered blood. I have heard so much of superiority of blood, and found so little of it, that I suspect there may be something of humbug in blooded animals, as well as their advocates.

*June 10, 1861.*

## THE POTATO ROT.

To prevent potatoes from the disease or rot, put a spoonful of salt into each hill, so as to have it dissolve and go down to the roots. It will cool the ground and prevent the rot, and even if the disease has commenced, the salt will cause the rot to go off, and leave a scar around the potato plain to be seen. Put the salt on when the vines are nearly grown. The extra quantity of potatoes will more than pay for the salt.

It would be desirable to have this inserted in all the papers in the world, especially in Ireland, where the rot is prevalent, and that nation makes great use of the potato.

T. P.

## NEW MODE OF PLANTING ON GREEN SWARD.

I will suggest a new method of plowing green sward for corn, (or at least something that I have never heard of.) Plow your piece all in double furrows, as you would to ridge old land, and plant between the furrows on top of the ridge. The hills can be near together, as they will be wide the other way. By this method you can get double the nutriment from the sod for each hill as when plowed the old way.

T. C. N.

## BUNCH ON A COW'S TEAT.

I noticed in your last an inquiry for a remedy to remove a bunch from a cow's teat. Take a piece of fine annealed wire and twist it around its base and give it another twist every two or three days; let the wire be single, with the ends twisted together. This will prevent blood from passing into the bunch, and it will soon dry up and drop off.

T. C. N.

*Charlotte, Ft., 1861.*

## BEFORE AND AFTER DRAINING.

The following statement was made by one of the successful competitors for premiums offered on corn crops by the Hillsborough, N. H., Agricultural Society. The ten bushels of corn raised on an acre of this land when so wet and soft at the time of the third hoeing that it wouldn't stay hilled up, probably cost more labor than the seventy-seven bushels raised after drainage, for which the premium was awarded.

The land on which I raised this corn is in the easterly part of Hillsborough, a hard-wood soil, naturally wet and springy. My father raised corn on a part of the same land some eighty years ago. When I was a boy he used to tell me about having corn on that land one rather wet season, and at the third time hoeing he tried to hill it up, as the fashion was then, but the land was so wet and soft that it would spread, and become level again. The result was, in the fall he got about ten bushels of corn to the acre. When I was young I used to raise corn on the piece, and in a dry warm season I could raise tolerable good corn, but in wet cold seasons I could get but little. It was so wet and rocky, both, that for the last five-and-twenty years, I had abandoned it, and thought I would never plow it again; but four years ago I had occasion to take some stone off from it to fence a road; and the surplus ones I drew off into piles; then I constructed several under-drains through the piece, and thought I would try it again for plowing. Last year it was about half of it planted with corn and manured some; the other part was planted with potatoes, without manure. This year I spread on the acre about thirty cartloads of manure from the barn cellar, of thirty bushels each, and plowed it twice, just as I could, it being so rocky that I could plow no regular depth. I then furrowed it, light as I could conveniently, about three feet and four inches apart, and manured it in the hill with a compost made of meadow mud and Peruvian guano, about one pound of guano to a bushel of mud—put half a shovel full in a hill, and the hills about two and a half feet apart. I hoed it three times, and kept it clear of weeds. The result was on the acre I had of corn No. 1, seventy-one and a half bushels; No. 2, five and a half bushels, of eighty pounds to the bushel. It was harvested the tenth of October.

HIRAM MUNROE.

## BONE DUST FOR BEANS.

Probably there is no manure that can be applied to the bean crop more decidedly beneficial in its effects, than bone dust. Wherever it has been tested, it has given satisfaction, and especially where the soil has been of a sandy texture, and but poorly supplied with lime. The accounts which some years since were transmitted to us from England, in relation to its efficiency, were regarded by many as doubtful: yet we have assurance that of all manurial agents, so far as the development of the bean crop is involved, bone manure is unquestionably the best. We advise those who can obtain it conveniently, to procure a

small quantity, apply it, and test its virtues for themselves. A trifling dressing of a crop at hoeing time, will frequently advance it entirely beyond the cost of the application.

## A SLAVE AUCTION DESCRIBED BY RUSSELL.

It appears from Mr. Russell's latest received letters, that while he was sojourning at the capital of the Southern Confederacy, he thought it would be instructive to attend for the first time a slave auction. What he saw and felt is thus vividly described:

"The crowd was small. Three or four idle men, in rough, homespun, make shift uniforms, leant against the irons, enclosing a small pond of foul green-looking water, surrounded by a brick work which decorates the space in front of the Exchange Hotel. The speaker stood on an empty deal packing-case. A man in a cart was listening, with a lack-lustre eye, to the address. Some three or four others, in a sort of vehicle which might either be a hearse or a piano van, had also drawn up for the benefit of the address. Five or six men in long black coats and high hats, some whittling sticks, and chewing tobacco, and discharging streams of discolored saliva, completed the group. 'Nine hundred and fifty dollars. Only nine hundred and fifty dollars offered for him,' exclaimed the man in the tone of injured dignity, remonstrance and surprise, which can be insinuated by all true auctioneers into the driest, numerical statements. 'Will no one make any advance on nine hundred and fifty dollars?' A man near me opened his mouth, spat, and said, 'Twenty-five.' 'Only nine hundred and seventy-five dollars offered for him. Why, that's ridiculous; only nine hundred and seventy-five dollars. Will no one,' &c.

Beside the orator-auctioneer stood a stout young man of five-and-twenty years of age, with a bundle in his hand. He was a muscular fellow, broad-shouldered, narrow-flanked, but rather small in stature; he had on a broad, greasy, old wide-awake, a blue jacket, a coarse cotton shirt, loose and rather ragged trousers and broken shoes. The expression of his face was heavy and sad, but it was by no means disagreeable, in spite of his thick lips, broad nostrils and high cheek bones. On his head was wool instead of hair; his whiskers were little flacculent, black tufts, and his skin was as dark as that of the late Mr. Dyce Sombre or of Sir Jung Bahadoor himself. I am neither sentimentalist, nor Black Republican, nor negro-worshipper, but I confess the sight caused a strange thrill through my heart. I tried in vain to make myself familiar with the fact that I could, for the sum of nine hundred and seventy-five dollars become as absolutely the owner of that mass of blood, bones, sinews, flesh and brains, as of the horse which stood by my side. I have seen slave markets in the East, but, somehow or other, the Orientalism of the scene cast a coloring over the nature of the sales there which deprived them of the disagreeable harshness and matter-of-fact character of the transaction before. For the Turk, or Smyrniote, or Egyptian, to buy and sell slaves seemed rather suited to the eternal fit-

ness of things than otherwise. The turbaned, shawled, loose-trousered, pipe-smoking merchants, speaking an unknown tongue, looked as if they were engaged in a legitimate business. One knew that their slaves would not be condemned to any very hard labor, and that they would be in some sort the inmates of the family and members of it. Here it grated on my ear to listen to the familiar tones of the English tongue as the medium by which the transfer was effected, and it was painful to see decent-looking men in European garb engaged in the work before me. The negro was sold to one of the bystanders, and walked off, with his bundle, God knows where. 'Niggers is cheap,' was the only remark of the bystanders. Another auctioneer, a flat, flabby, perspiring, puffy man, was trying to sell a negro girl who stood on the deal box beside him. She was dressed pretty much like a London servant girl of the lower order, out of place, except that her shoes were shreds of leather patches and her bonnet would have scarce passed muster in the New Cut. She, too, had a little bundle in her hand, and looked out at the buyers from a pair of large, sad eyes. 'Niggers were cheap;' still here was this young woman going for an upset price of \$610, but no one would bid, and the auctioneer, after vain attempts to raise the price and excite competition, said, 'Not sold to-day, Sally; you may get down.' She stepped down from the box and walked off down the main street without further notice, while the auctioneer sauntered away in another direction."

**TIT FOR TAT A BAD RULE.**—When I was a little girl, I learned a good lesson. One frosty morning I was looking out of a window into my father's farm-yard, where stood many cows, oxen, and horses, waiting for drink. The morning was very cold; the animals stood meek and quiet, till one of the cows wanted to move, and tried to turn round. In trying to do this she hit against her neighbor; whereupon that one kicked, and hit the one next to her. In five minutes the late peaceful congregation of animals was in great turmoil, furiously kicking and butting each other. My mother laughed, and said, "See what comes of kicking when you are hit; just so have I seen one cross word set a whole family by the ears." Afterward, if my brothers or myself were cross or irritable, she would say, "Take care, my children, remember how the fight in the straw-yard began; never give back a kick for a hit, and you will save yourself and others much trouble."

**SHEEP AND DOGS IN MASSACHUSETTS.**—The sheep in Massachusetts numbered 378,226 in 1840; but they decreased to only 11,311 in 1860. In 1850 they numbered 188,651, and produced 585,000 lbs. of wool, while the manufacturers of the State consumed 22,000,000 lbs., outside of domestic or household products. The returns from the various towns, almost without exception, attribute the decrease in sheep in great part to the killing and worrying of dogs. The benefits of the stringent dog law passed two years ago, are beginning to be perceived. All dogs are taxed, and from the fund thus obtained all losses caused by dogs are paid.

**MEAT FOR HENS.**—If confined to the hennery, these fowls will require meat daily. If meat is not at command, fish, fresh, will answer as a substitute.

## YOUTH'S DEPARTMENT.

### THE ROBIN'S SONG.

One summer morning early,  
When the dew was bright to see,  
Our dark eyed little Charlie  
Stood by his mother's knee,  
And he heard a robin singing  
In a tree so tall and high,  
On the topmost bough 'twas swinging,  
Away up in the sky.

"Mamma, the robin's praying,  
In the very tree-top there;  
Glory! Glory! it is saying,  
And that is all its prayer.  
But God will surely bear him,  
And the angels standing by,  
For God is very near him,  
Away up in the sky."

"My child! God is no nearer  
To the robin on the tree,  
And does not hear him clearer  
Than he does you and me.  
For he hears the angels harping  
In sun-bright glory drest,  
And the little birdlings chirping  
Down in their leafy nest."

"Mamma, if you should hide me  
Away down in the dark,  
And leave no lamp beside me,  
Would God then have to hark?  
And if I whisper lowly,  
All covered in my bed,  
Do you think that Jesus holy  
Would know what 'twas I said?"

"My darling little lisper,  
God's light is never dim;  
The very lowest whisper  
Is always close to Him."

Now the robin's song was filling  
The child's soul full of bliss;  
The very air was trilling  
When his mamma told him this.  
And he wished, in childish craving,  
For the robin's wings to fly;  
To sing on tree-tops waving,  
So very near the sky.

*Child at Home.*

### SKIPPING AND SKIMMING.

Two bad habits, increasing among the young folk—some of them, at least. "Why, is it bad to skip or skim?" you ask, perhaps. That depends upon how and what you skip and skim.

I find there is a great deal of skipping and skimming in the way children read their books in these days, and that is bad. It is a loose, careless, hasty way of reading, which snatches up the story, and hardly that, leaving out all the instruction, thought, purpose of the book, and making pretty much all of it a confused jumble, like type in pi.

"We have so many books." Yes, some of you have, and it is a pity, for you do not value them as the few I used to have in my childhood. These few were not only read with great attention the first time, but they were read and re-read, put away, brought back and read again; and the consequence was they made an impression. I feel their power to this day. The true way to read is, first to select, or have selected for you, a book that is *worth reading*; then read it carefully, thoughtfully, attentively. Read it to remember it, and read it accurately.

Let me tell you about a little boy. His auntie

gave him some cards with the kings and queens of England pictured on them. Then, as he was inquisitive to know who they all were, she used to tell him the history of their different reigns, and the good and the bad things they did. Her stories interested the little boy, and he listened very attentively. As he was playing with his cards one day, his papa took up one, and asked him whose face that was on the card. The little boy told him, and moreover gave a good account of that king's reign. His papa was much surprised, and asked him about another; and so he went on and gave a correct little story of them all. Papa was very much pleased, and the next day gave his little son three large volumes of English history. The child could not read yet, he was only three years old; but he was so attentive.

When he was eight years old, this same little boy read a book, which, forty years after, he quoted accurately from by memory, when writing a lecture to be delivered before a body of learned men; nor had he ever seen the book since. How carefully he must have read it. How clear it must have been in his mind. No skipping or skimming there, I reckon; no confused jumble.

That little boy became a distinguished teacher, the famous Dr. Arnold, of Rugby school. This is the kind of reading and hearing which makes good memories and stores up useful information.—*Child's Paper.*

**A CURIOUS EXPERIMENT.**—Take a round piece of pasteboard (or any other shape) and insert it in a quill open at both ends, and lay this on another piece of pasteboard of the same shape, in which is stuck a pin, so that the pin will enter the quill. Blow through the quill as hard as you may, but the lower piece cannot be blown off.

A common spool, such as is used for sewing cotton, forms a suitable apparatus for trying this wonderful experiment. Take a bit of smooth writing paper a little larger than the head of the spool, and run a pin through the paper and into the bore of the spool. Now, by blowing down it will be found impossible to blow the paper off. By observing closely, it will be seen that the paper does not quite touch the head of the spool. It is, of course, necessary to hold the paper up with the hand until you begin to blow.

The explanation is this: When the currents of air are established, radiating from the central tube horizontally between the disk and the paper, the greater area of the disk as compared with that of the tube causes the air above the paper to be rarified, when the pressure of the air below, not being counterbalanced, holds the paper up. The pin acts as an anchor to prevent the paper from being blown away horizontally.—*Scientific American.*

**THE EARTH.**—The hollow ball on which we live contains within itself the elements of its own destruction. Within the outer crust—the cool temperature of which supports animal and vegetable life, and solidifies the stone, coal and metallic ores so important to our well being—there exists a mass of fluid igneous matter. Some of this matter occasionally escapes through the mouth of a volcano, or makes its presence felt by

an earthquake; but neither the earthquake nor the volcano are necessary to prove that fire exists in the earth. At the depth of 2480 yards, water boils; lead melts at the depth of 8400 yds. There is a red heat at the depth of seven miles, and if we adopt the temperature as calculated by Morveau's corrected scale of Wedgeworth's pyrometer, we find that the earth is fluid at the depth of one hundred miles.

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## LADIES' DEPARTMENT.

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### DOMESTIC RECEIPTS.

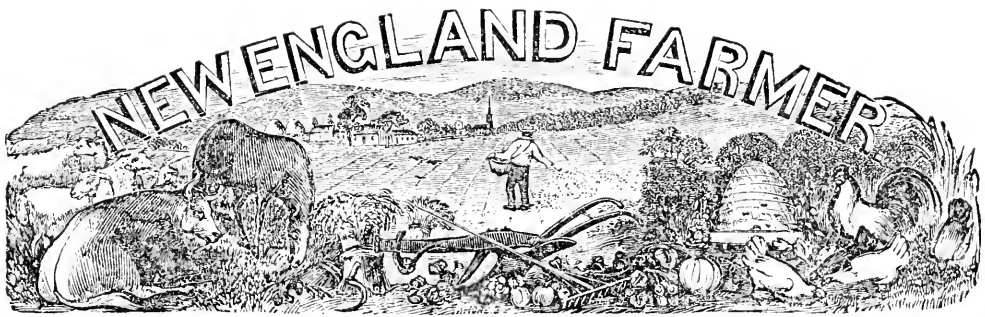
**BREAD MAKING.**—One of the best London bakers gives the following receipt to make a superior loaf of bread, of what is called a half peck size. Will not some of our readers try the plan, and report upon their success with it?

"To make a half peck loaf, take three-quarters of a pound of well-boiled mealy potatoes, and mash them through a fine cullender, or coarse sieve, add one-eighth of a pint of yeast, (about two table-spoonfuls,) or three-quarters of an ounce of German dried yeast, and one pint and three-quarters of lukewarm water, (88 degrees Fahr.,) together with about three-quarters of a pound of flour, to render the mixture the consistence of thin batter; this mixture should be set aside to ferment; if placed in a warm situation, it will rise in less than two hours, when it will resemble yeast in appearance, except as to color. The sponge so made is then to be mixed with one pint of water, nearly blood warm—viz., 92 degrees Fahr., and poured into half a peck of flour, which has previously had one ounce and a quarter of salt mixed with it; the whole should then be kneaded into dough, and allowed to rise in a warm place for two hours, when it should be kneaded into loaves and baked. The object of adding the mashed potatoes is to increase the amount of fermentation in the sponge, which it does to a very remarkable degree, and, consequently, renders the bread lighter and better."

**HOT SLAW.**—Cut a good cabbage, and with a sharp knife, slice it fine; put it into a stew-pan with a piece of butter, and salt and pepper to taste; pour in just hot water enough to prevent its sticking to the pan; cover it closely, and let it stew; stir it frequently, and when it is quite tender, add a little vinegar, and serve it hot.

**TO MAKE UNLEAVENED BREAD.**—Take one quart of bran flour, one table-spoonful sugar, a little salt. Mix with cold water into a stiff dough; a little corn meal is an improvement. Spread it into a thin loaf; bake in a quick, hot oven.

**GINGER BEER.**—Put two gallons of cold water into a pot upon the fire; add to it two ounces of good ginger bruised, and two pounds of white or brown sugar. Let all this come to the boil, and continue boiling for about half an hour. Then skim the liquor and pour it into a jar or tub, along with one sliced lemon, and half an ounce of cream of tartar. When nearly cold, put in a teacup full of yeast, to cause the liquor to work. The beer is now made; and after it has worked for two days, strain it, and bottle it for use. Tie down the corks firmly.



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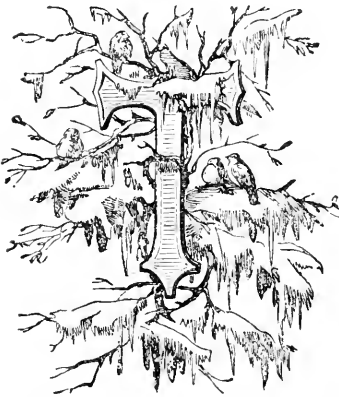
SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

FOR A WET DAY IN AUGUST.

Whether we look or whether we listen,  
We hear Life murmur, or see it glisten;  
Every clod feels a stir of might,  
An instinct within it that reaches and towers,  
And grasping blindly above it for light,  
Climbs to a soul in grass and flowers.

LOWELL.



THE farmer's life is necessarily one of active industry; it should also be one of happiness. No occupation affords such various resources, both of emolument and pleasure, as farming, when

judiciously and intelligently pursued. The New England farmer should, in the first place, settle his mind to the necessity of vigorous individual action, and of active inquiry into the various modes of enlarging the sphere of his professional efforts, and their emoluments. He should not repose with a humble and contented ambition upon the platform of past ages, or upon the obsolete usages of those who, in the primal days of American agriculture, were compelled to open pathways for the sun into the bosom of dense and trackless forests, and to extort the means of subsistence from a soil which was yet incumbered with almost insuperable impediments.

There is no reason why the union of intelligence, capital, and power, should not be as productive of happy results, in agriculture, as in other pursuits. Within the last twenty years the hand of science has accomplished wonders in the way of improvements, and even within the last ten years the changes which have been introduced in-

to the manipulatory processes of the art, have so far lessened its toils, and augmented its results, as to render the pursuit of farming one of the most agreeable and profitable of human avocations.

The farmer—if a true man—now strives to excel in intelligence, as well as in wealth. He frequently has his library, and his cabinet of minerals, and is emulous of understanding the “why and wherefore” of the various theories and processes he adopts and practices in the cultivation of his crops, the management of his stock, and the general routine of his domestic and personal affairs. It is a common saying in politics, that “revolutions never go backward;” and it is equally true, perhaps, in the generality of cases, that the human mind once stimulated to an interested pursuit of knowledge will neither retrograde nor pause, but press onward towards the goal with constantly increasing ardor and success to the attainment of objects presented to its grasp.

What a contrast is presented, in this particular between the freeborn American farmer, and the English peasant. Speaking of the latter, a late writer, himself an Englishman, observes:—“He feels that he is a mere serf, among the great and free; a mere machine in the hands of the mighty, who use him as such. He sees the sunshine of grandeur, but does not feel its warmth. He hears that the great folks are wise; but all *he* knows is that their wisdom does not trouble itself about his ignorance. He asks, with the “FARMER’S BOY,”—

“Whence comes this change, ungracious, irksome, cold?  
Whence this new grandeur that mine eyes behold?  
The widening distance that I daily see?  
Has wealth done this? Then wealth’s a foe to me!  
Foe to my rights, that leaves a powerful few  
The paths of emulation to pursue.”

But even this rough block from the quarry of ignorance, is capable of being chiselled and polished, and sent forth into the great thorough-

fares of life, a being of beauty and power—capable of grasping the mysteries of the universe, and of holding converse with the stars. It was of such materials that the armies were formed which won at Cressy, at Agincourt, and at Waterloo; and it was with seamen taken in part from the same degraded class, that the fleets which won imperishable glory to the cross of St. George at Camperdown, and at Trafalgar, were manned! For the American farmer there is a future radiant with glorious promise. He feels that he *is a man*, and capable of verifying, by his character and deeds, the truth of the poetical axiom, that

“A bold yeomanry is a country’s pride,”

and that to be restricted in thought and opinion, and confined in activity by ignorance, is a species of mental serfdom at variance with the instincts of his nature, and antagonistic to the principles of that freedom which is one of the chief guarantees and safeguards of the government under which he lives. No man enjoys better advantages for mental improvement than the farmer, and by no class of men, as a general thing, perhaps, are these advantages turned to more profitable account. The multiplication of text-books and even of exhaustive works on the sciences immediately connected with agriculture, and the institution of societies, clubs and public lectures—all designed for the promotion of the chief interests of the art—bring within his reach all the means that can reasonably be desired.

Knowledge thus brought to his fireside, must have a most salutary influence, and, in time, be productive of great good, by elevating the mind, strengthening the understanding, and purifying the affections which link together in indissoluble bonds, the great brotherhood of man.

“Corruption in the great mass of cultivators,” says Jefferson, “is a phenomenon of which no age or nation has presented an instance.” Of all men the farmer has the best opportunity to cultivate his taste and improve his mind by study. The long winter evenings, and occasional hours for relaxation from labor through the year, afford ample time for this, and for this purpose they will by most persons, be improved. The cultivation of the mind is of greater importance than the cultivation of the soil, so far as solid enjoyment and genuine happiness are involved.

**SKIPPERS, &C.**—To exterminate skippers and eggs make a strong decoction of elder leaves and young twigs, and immerse the ham into it, boiling hot, for a minute or two. No bad taste or flavor is given the meat, while insect and egg is utterly destroyed. Applied cold it will be found just as effective on the live animal. The leaves

and twigs scattered about a room, and renewed as they become dry, will drive out roaches and other kindred insects. I have driven ground-moles from particular beds in my garden, when troublesome, by inserting green leaves in their back paths.

#### CULTIVATION OF OUR NATIVE PINES.

The White pine, (*Pinus Strobus*,) called in England the Weymouth pine, was one of the first American trees introduced into that country, where it has always been highly prized as an ornamental tree. It has been more thoroughly appreciated in England than in America; but no person doubts its value, either to be planted as a timber or forest tree, or as an ornamental appendage to one’s estate. According to Gen. Dearborn, who devoted a great deal of attention to tree culture, “the cones of the White pine must be gathered early in autumn, as the scales open about the first of October, when the seeds are released, which being furnished with a membranous wing, are speedily scattered by the winds to a great distance. The cones when collected should be laid in some dry place, where the scales will open, and the seeds can then be easily shaken out.”

The time for sowing them is when the ground is first open in the spring, which is usually about the first part of April, on beds of well pulverized soil. They may be planted still earlier than this in pots, which can be placed in any change of situation that may be required. In England it is usual to cover the young plants with nets to prevent birds from picking off the tops of the little seedlings while the husks of the seeds are upon them; also to screen them from the heat of the sun. The young plants should be kept quite clean, and occasionally watered in a careful manner, so as not to deluge them and harden the earth round about them. If they come up too close, the plants should be thinned out in summer, and the surplus removed to a separate bed, protected by shade, and watered freely but carefully. They should be set in rows, four or five inches apart, with about the same distance between the rows.

When the plants are a year old, they should be transferred to other rows in the nursery, about two feet apart, and the same distance between the rows. Here it is customary to let them remain, until they are to be planted out. The best time for planting them out in our climate is during the first half of May. It is advisable not to allow them to attain a considerable size before they are planted out, as the smaller the plants, if not too small, the better they succeed. When large plantations are to be made, it is best to raise the plants on portions of the same ground, as it somewhat retards their growth to suffer a complete change of soil. It is also beneficial to their growth to transplant them once in two years, as by this process they obtain better roots, and acquire, by habit, the power of sustaining the operation with impunity, so that they may be afterwards transplanted into any soil with complete success. In all cases, when transplanting them, care should be taken not to cut or wound any portion either of the roots or branches.—*Hovey’s Magazine*.



*For the New England Farmer.*

### RURAL ECONOMY.

MR. EDITOR:—I wish to offer a few brief remarks on rural economy, a subject which commends itself to the consideration of every farmer as it lies at the very foundation of all good farming. In fact, I do not believe there is any such thing as good, successful and profitable farming, without economy in the use of all the means employed to promote the object, that is, in the use of money, time and labor. There is no economy in spending \$150 in money, time or labor in raising the best piece of corn in the county, which, after all, is not worth more than \$140 in the market, without some other valuable object or end is also attained, besides the price of the corn as an offset to the expense. With a great expenditure of money, time and labor, a farmer of ample means can make all his lands "flourish and blossom as the rose," can raise prodigious great crops, and obtain, perhaps, all the premiums at the cattle show, in spite of the utmost efforts of his poor neighbor; when, in fact, his poor neighbor, by his skill and economy, in adapting all his means to his ends, shows himself to be the better, the more successful and profitable farmer.

Farming is always profitable, when conducted with skill and economy. Either alone will not be sufficient; they must be united in order to render farming successful and profitable. If any have failed in the business, it has been owing to either to the want of skill, or to the want of economy, or to the want of both united.

Poverty is a great and terrible burden to the young and intelligent farmer; and it imposes upon him the most rigid economy. None but the rich can farm it as well as he knows how, or indulge in any of the fanciful operations and experiments of the day. The poor man has not the means to carry out all his own plans of farm operations. He has not the means to cultivate fifteen or twenty acres, to purchase fancy fertilizers, and to try experiments on a large scale. No; he is a poor man, and, as such, he is obliged to practice the most rigid economy, and use all his means to the best advantage. He has not the means to purchase manure of any kind for his land; he must, therefore, plant one acre instead of twenty; and to enrich this one acre, he must resort to the sink-spout, the hen-roost, the ash-heap, the hog-pen, the barn-yard, the privy, for his fertilizers. He must, also, scrape up and gather together all the odds and ends of every-thing on and about his premises, which can be composted with the above and converted into manure, such as leaves from the forest, mud from the meadow, peat or marl from the bog, together with turfs, sods, roots, weeds, waste straw and hay, chip manure, &c. These, and such like when thoroughly composted, must be skillfully applied to his one acre; and he must continue the operation, till he is prepared to lay down this acre and take up another.

A farmer of moderate means must economize, not only in making and saving all the manure he can, and in applying it skillfully to a small extent of surface, but he must confine himself chiefly to the use of domestic manure of his own manufacture. In his circumstances, it will not do for him to purchase foreign fertilizers, such as

guano, phosphates and superphosphates. At their present high prices they are too expensive for him; and in the end they will prove to be unprofitable. When first applied, for a year or so, their stimulating effects are truly wonderful; but they do not hold out; they do not, like domestic manure, increase the natural strength and fertility of the soil. Their effects upon the soil are very much like alcohol upon the human system—very exciting and stimulating for the present, but requiring a constant supply to keep up the excitement.

It is the chief concern of a good farmer, whether rich or poor, to practice economy in every line of his business, and in all his domestic affairs. All his money, all his time, all his talents and all his labors are directed to the one great, grand object of his calling, the enriching and cultivating the earth, the production of various kinds of crops, fruits and animals, the feeding and management of stock, the disposal of every kind of surplus productions, the saving of everything which can be converted to a useful purpose, or made to improve his condition. Above all, he avoids running into debt. He also avoids running to the banks to get his notes discounted; for he knows full well, that though they may be very polite and accommodating in granting him every bank facility in their power, and in shaving him very handsomely and gracefully when money is quite plenty; yet that when money gets to be scarce and the pinch comes, they will leave him to take care of himself by consulting the tender mercies of his creditors. He has made up his mind, therefore, not to spend his money before he gets it, but to live within his means, and upon his present income and profits. More especially has he made up his mind to disregard the croakings of those everlasting harpies, who, being too lazy, too proud, and too shiftless, to gain an honest and honorable living by their industry, economy and labor, are forever repeating that "farming is unprofitable."

*Warwick, Mass.*

JOHN GOLDSBURY.

MICE UTILIZED BY A SCOTCHMAN.—A man in Scotland has trained a couple of mice to spin cotton very successfully. The work is so constructed that the common mouse is able to make atonement to society for past offences, by twisting twine, and reeling from 100 to 126 threads per day. To complete this, the little pedestrian has to run 10½ miles. A half-penny worth of oatmeal serves one of these tread-wheel spinners for the long period of five weeks. In that time it makes 110 threads per day. At this rate a mouse earns 7s. 6d. per annum. Take off 5d. for food, and 1s. for machinery, there will rise 6s. clear for every mouse per annum.

TO CORRESPONDENTS.—We have published several letters giving opinions of the merits of several mowing machines, and giving the names of the writers. We admit these discussions in the hope that it may be ascertained which the best machine is. We have before us a letter from Hatfield, signed "J. E. W.," which we will cheerfully publish if he will send us his name.

*For the New England Farmer.*

#### RETROSPECTIVE NOTES.

**FAT SOWS FOR BREEDERS.**—This is the caption of an article in the June number of the *Farmer*, page 250, which will bring to the acquaintance of some of its readers a few of the somewhat peculiar methods of management in the raising and fattening of hogs, which have been adopted by one who has had very uncommon success, and who enjoys a very high reputation in this department of farming. This individual, who raises the cheapest pork and the heaviest pigs of any man "in all the country round," is JOHN SKAATS, of Alexander, Genesee county, New York. As only a few of the peculiarities of this very successful hog-breeder and pork-maker are mentioned in the article referred to, (see June number of the *N. E. Farmer*, page 250,) and as almost all the items in his mode of management are well worthy of consideration, and of imitation to a greater or less extent, it has seemed to me quite probable that several of the readers of this paper might derive some useful hints from a more detailed statement of the prominent characteristics of Mr. SKAATS' method of raising and fattening hogs. My information is derived partly from private sources, but mainly from sundry communications in regard to Mr. S.'s somewhat peculiar modes of management in the *Genesee Farmer* and the *Cultivator*, (Albany.)

**A MODEL PORK-MAKER'S MODE OF MANAGEMENT.**—First of all, Mr. S. never uses any sows for breeding, under a year and a half old, nor boars until they are of the same age, or, at least, over one year old. He continues to use the sows up to five or six years of age, and thinks they continue to improve as breeders up to that age. In this respect, his example is certainly worthy of imitation, and every man of common sense, even without the corroborating testimony of experience, must readily believe that pigs from sows and sires who have attained their maturity, must inherit far more healthy and vigorous constitutions than the progeny of parents which have not as yet attained their full growth or maturity. Indeed, breeding for three or four generations from sows or boars under one year of age, cannot fail to produce a deterioration of the progeny, or breed.

I cannot regard the next peculiarity in Mr. S.'s management with equal favor. I refer to his keeping his breeding sows pork-fat. Experience has taught me, and probably many others, that when cows are in quite high condition at the period of parturition, they are much more liable to attacks of milk or puerperal fever, and to other forms of inflammatory and febrile disease, than when in a less plethoric condition. This very spring I have lost one fine and favorite cow, a few days after calving, and undoubtedly from this cause. Sows, I am aware, are not so liable to fevers and similar complaints at the period of parturition, as cows are; but still I cannot rid myself of the idea that even a sow will pass through that process and its concomitants and consequences with far more safety, if only in fair or moderate condition, than if in such high condition as to be called pork-fat. In confirmation of this idea, I recollect of having met with a communication in the *Maine Farmer* of last year, in which a

correspondent, who had had thirty years' successful experience in raising pigs, directs that for two days after bringing forth her young, a sow should have no food, except a little thin, warm gruel, so as not to exceed half a pint a day of meal. "This is very essential," says this breeder of thirty years' experience, "as it helps the flow of milk, and prevents fever." This shows that, though there may be less danger from full feeding and a high condition in sows than in cows, at and after the period of parturition, there is, nevertheless, danger to a certain extent. In Dr. Dadd's *American Cattle Doctor*, I find, also, a sentence which implies that sows, while with pig, should not be fed to the full, or so abundantly or richly as to make them pork-fat. The sentence referred to, directs that "sows with pigs should be kept with the litters in separate sties, and be still better fed than those with pig." With these remarks by way of caution against carrying a very good practice to an extreme, I leave the reader to judge and choose for himself between Mr. S.'s practice of keeping his breeding sow pork-fat, and what seems to me the safer, and every way better practice of keeping her in only fair, or moderate condition until after parturition. While her litter is nursing, it is safe, and without danger to health, to give the sow all the food she will eat up clean. I cannot, however, allow myself to dismiss this subject, without remarking that, though there may be one here and there who may go to an extreme in keeping his breeding sow too fat, there are scores for every such one who do not keep their breeding sows in as good condition as would be for her comfort and for their own profit.

Another peculiarity of this model hog-breeder and pork-maker, Mr. SKAATS, is this—he never feeds the pigs with the sow. He begins to feed them new milk, and then milk diluted with slops, just as soon as they will eat, which they will usually do at two or three weeks old, and in order that the sow may not steal it away from them, nor disturb them, he gives the pigs an apartment for themselves, with small openings to go in and out at their pleasure.

Another peculiarity of Mr. S.'s mode of raising and fattening hogs, consists in never allowing them to get so hungry as to squeal. When young, after weaning them, he feeds them six times a day, and at no after period of their growth, does he feed them less than four times a day, and he is very particular about having them fed at regular periods, punctually, and exactly at the hour. Then, again, he either cooks all their food, or lets it sour a little in the swill-barrel, if fed out without cooking. As an instance of the better relish given to raw food when it has lain forty-eight hours or so in the swill-barrel, it is stated that hogs will eat with apparent good relish, sour apples that have been thus treated, when they would not touch a fresh one.

Another of the peculiarities of Mr. S.'s mode of fattening his hogs is this—he uses very little corn, and sometimes none at all. In this respect, his example seems worthy of consideration, and perhaps of imitation, for, as must have occurred to the observation and reflections of farmers of good judgment, there are a good many who depend too exclusively on corn; who feed corn for weeks and even months at a stretch, causing dyspepsia, sourness of stomach, discomfort, and dis-

ease in their hogs, which might have been avoided by less heating food, as boiled potatoes, or other roots and vegetables with a little bran, shorts, ground oats, peas, barley, &c., mixed therewith. Such a mode of feeding is not only more wholesome, and more promotive of growth, but, also, decidedly more economical.

Another good point in Mr. S.'s mode of management is, he never keeps any spring pigs over winter, or any pigs whatever over a year old, except breeding sows. He aims to have two litters every year; the first he butchers at ten months old, if not earlier, and the second litter, coming in the fall, he disposes of as roasters and in other ways.

And now, what is the result of all this superior good management? It is this:—Mr. S. makes his pigs, at ten months old, dress over four hundred pounds, (400 lbs.), this weight being about his average aim and attainment. He has sometimes exceeded even that large average, some of his hogs, at ten, or ten and a half months, weighing, when dressed, 450 pounds. This remarkable success, and the hope of enabling others to come somewhat near it, have induced me to write out the above statement of his mode of management.

MORE ANON.

*For the New England Farmer.*

#### MR. KIDDER AND HIS HIVE.

In a communication published in the *Farmer*, May 18, I incidentally alluded to Mr. Kidder's hive and book. I see by your paper of the 15th that Mr. Kidder does not seem pleased with what I said, and endeavors to turn aside my remarks by insinuating that I am interested in the sale of the Langstroth hive. Mr. Kidder is mistaken. I am not interested in the sale of any hive, whether patented or otherwise. My sole object in speaking of his hive, was to caution the public against what I had good reason to believe was an imposition. Mr. Kidder says in his book, page 147, that he is "well aware that the public have been swindled out of much money by highly extolled patent hives." This is just what I meant to convey when I spoke of his hive. Believing it to be a swindle, and knowing that the best part of it was purloined from the Langstroth hive, I did not hesitate to speak of it as is deserved. Mr. Kidder's denial of my statement is a matter of no consequence. Any one who will take the trouble to compare the two hives, will see that I have done him no more than justice. His book is, if anything, worse. It is a complete system of wholesale plunder from well known authors. The engravings are transferred from Langstroth's book, and whole pages are copied from Bevan without credit or acknowledgment. Occasionally traces of Mr. Kidder's marvellous intellect may be found scattered through the book. On page 99 he states that a good swarm of bees will store up 300 pounds of honey, and build their own comb, in one season. He had a swarm that stored up 125 pounds in eleven days, and there were three days of bad weather in the time. It was a young swarm that came out on the 14th of July. 300 pounds honey at 20 cts. a pound—net proceeds per swarm, \$60,00! Can any sensible bee-keeper read this statement without coming to the conclusion that Mr. Kidder is blessed with a large

share of invention and a happy faculty of steering clear of the truth! Perhaps Mr. Kidder ought not to be blamed for all the faults the book contains—as the gentleman who wrote it for him knew nothing of the natural habits of the bee, and made use of such material as came in his way. Mr. Kidder thinks that I "may be tickled with a communication from Mr. Quinby, published in the *Rural New-Yorker* of Dec. 18, 1858, wherein he says, 'that he had a large number of the Langstroth hives in use, and two-thirds of the swarms that were put into the hives built their combs in every possible direction, without any regard to the frames, making them, so far as movable combs were concerned, no better than a common hive.' He also adds, 'that the frames were worse than useless, and that parties that had purchased the Langstroth hive, had lost both time and money,' and at the same time recommends the use of the common hives in their stead."

If this quotation proves anything, it proves that the Kidder hive is utterly worthless; both hives have moveable comb, and the device for obtaining straight comb is the same in each. Mr. Kidder having taken his from Mr. Langstroth, I confess that I am pleased with the quotation, and will proceed to acknowledge my gratitude by an extract from the last edition of Mr. Quinby's book published in 1858. As this is Mr. Quinby's authorized work, I take it that the public have quite as good a right to consider it authority as any newspaper article certified by Mr. Kidder.

Mr. Quinby says, page 377, after speaking highly of the Langstroth hive,

"That in the summer of 1857, he put nearly one hundred swarms of bees into these hives, and although several made their combs somewhat crooked, they all could be taken out but one. That season proved a very poor one for honey, and to prevent a worse evil they were doomed to the brimstone pit. All the combs in these frames were saved, as so much work accomplished for another year. Such as contained enough honey to make it worth the trouble, were given to light colonies, a number of which were by this means enabled to pass the winter safely. For this season, (1858,) these frames with dry combs were used with empty ones in most of the hives for new swarms. Two or three frames only, containing combs, were put in a hive, as an occasional guide between the empty ones. In this way, I have secured all straight comb."

From the above it will be seen that Mr. Quinby ended the season of 1858 with all straight combs. Mr. Kidder's quotation proves that his own hive is a failure. While my quotation proves that Mr. Kidder's pretended quotation is a humbug. I hope Mr. Kidder will give me credit for helping him out of the dilemma. I have no prejudice for or against Mr. Kidder. I know him principally through his book, his hive, and a notice in the papers, that he had appeared in sundry places with a swarm of bees in his hat. After a careful study of his hive and book, I saw no reason why an ordinary-sized hat upon his head, should not leave room for a fair swarm of bees—and in the absence of anything better, I did not feel disposed to call in question his taste in thus filling the vacancy.

The following statements, one from Mr. Cros-

by, the able Solicitor of Patents, and the other from M. M. Tidd, the well-known Artist and Designer, are to the point, and there can be no doubt that those who use the Kidder hive are liable to a prosecution for an infringement of the Langstroth patent. E. A. BRACKETT.

Winchester, June 17, 1861.

June 19, 1861.

DEAR SIR:—In reply to your inquiries I have to inform you that I have examined the hive commonly known as "Kidder's."

In my opinion it is a plain infringement on Langstroth's patent of Oct. 5, 1852.

It is true that there are some variations from the exact construction recommended by Langstroth, but the changes do not evade the patent, and are anything but improvements upon it.

Parties using, selling or making the Kidder Hive may be proceeded against for infringement of the Langstroth patent, and I have no doubt but that damages would be recovered for the infringement. Yours respectfully,

J. B. CROSBY, 70 State St.

E. A. BRACKETT, Esq.

Boston, June 19, 1861.

DEAR SIR:—I have carefully examined the copy of Mr. Kidder's book that you sent me, and I am fully satisfied that with the exception of the portrait of Mr. K. and the little hive on page fifteen, the cuts are taken from Mr. Langstroth's book by that somewhat piratical process known to engravers as "transfer." I feel confident of this, as it is hardly possible that I should mistake a transfer from my own drawings anywhere.

Respectfully yours,

E. A. BRACKETT, Esq.

M. M. TIDD.

For the New England Farmer.

#### SKILL IN FARMING.

MR. EDITOR:—Skill, in its common acceptation, means science or knowledge; and perhaps it includes, in its signification, the idea of art. In this popular sense, I apply the term skill to farming. Skill in farming is no less essential to success than skill in any other business or pursuit. It is as important and as necessary to the success of a farmer, as it is to the success of an artist, a mechanic, a manufacturer, a merchant, a lawyer, a doctor, or a divine. There is no such thing as success in any calling or pursuit without skill. Every thing depends upon it. And, in general, the degree of success is in due proportion to the amount of skill, in each particular case, as well as in each particular calling.

The farmer is no exception to this general rule or principle. He is generally successful or unsuccessful in exact proportion as he manages his business skilfully or unskilfully; so that, whatever may be said about good or bad luck, in particular instances, it is skill that leads to success in all kinds of business. There can be no doubt of this truth, as a general principle. There can be no doubt, that skill, activity, industry and economy usually carry off the prizes which turn up on the wheel of fortune. At the same time, it is undoubtedly true, that something is due to the circumstances of life, as well as to the influence

which wisely controls human destiny. But all who expect to be successful in farming, or in any other kind of business, without the exercise of skill, prudence and economy, will most certainly meet with sad disappointment.

This I know is doubted by some, and denied by others. "How comes it to pass," say they, "that such men as the late Lord Timothy Dexter, of Newburyport, without skill or even common sagacity, have been able to accumulate such monstrous fortunes? Besides, there have been men who did not know enough to go to mill, without a large stone in the mouth of the bag to balance the grain in the other end; and yet these men, by mere good luck, have blundered into great fortunes."

It is true, that the late Lord Timothy Dexter, as he was familiarly called, sent a large cargo of warming-pans to the West Indies, a region already too warm for human comfort, on which cargo he would have *lost* instead of *making* a fortune, had it not been for the skill and ingenuity of a Yankee, to whom the cargo was consigned, who converted the top part of the warming-pans into strainers of molasses, and the bottom part into dippers or ladles, and sold them at enormous prices; so that the blunder of Lord Dexter was, by the skill of the Yankee, converted into a very profitable investment. The same may be the case with regard to the blunders of an unskilful farmer, if he happen to have an agent sufficiently skilful to turn all his blunders to good account, so as to accumulate a fortune.

But, after all, it is skill that accomplishes the object. It is skill that makes the successful and profitable farmer. It is skill in practice—in the expenditure of money, time and labor. It is that kind of skill which enables a farmer to do every kind of work at the right time, and in the best manner possible.

The number of farmers is comparatively small who employ all their means and resources to the best advantage. They have, perhaps, money enough, time enough, and a certain kind and order of talent enough; but, for want of skill and a suitable education in their calling, they fail of success. They know that they must plow their grounds, work in their manure if they have any, sow and plant their seeds, and cultivate their crops, some time in the spring; but the exact time when they should perform these several operations, they know not. The same is true with regard to the best way and manner of doing the work. In plowing, they are liable to do it a little too early or a little too late, a little too deep or not quite deep enough. The same is true with regard to all the operations on the farm. They all suffer for want of skill in the operators.

Skill in farming depends, in a great measure, upon thought, study, observation and practice. There is mind in the work, and a will to work. And such farming is always successful, and generally profitable. It is successful, because all the operations of the farm are directed by skill, and performed in the best manner possible. For the same reason, it is generally profitable, and either results in great crops, or else in great improvements on the farm. It may be the object of a skilful farmer not to obtain a great and valuable crop the present year, but to make some lasting and valuable improvement on his land. And such

farming is generally profitable in the long run; because, with very little additional labor and expense, every subsequent year, the land may be made to yield very great and profitable crops.

Indeed, skill is absolutely indispensable in all farm operations; skill in buying and selling; skill in saving everything, and in converting it to some useful purpose; skill in making, saving and applying manures; skill in plowing the land, in pulverizing the soil, and in fitting it for the reception of the different kinds of seed; skill in the selection of seeds, and in adapting them to the different kinds of soil; skill in cultivating the different kinds of crops and of garden vegetables, and in turning them to good account; skill in breeding, rearing and managing the various kinds of farm stock, so as to render them useful and profitable; in fine, skill in everything.

JOHN GOLDSBURY.

Warwick, March, 1861.

### RAIN.

#### COUNTRY.

The rain-drops now fall gladly all around,  
And light with sweet repose upon the ground;  
Each leaf and flower, each tiny blade of grass,  
Rejoices that the rain has come at last!  
How welcome to the farmer, as now he lays aside  
His work—and then at close of eventide  
Gives thanks unto the Sender of the rain  
For giving all this blessing once again!

#### CITY.

Upon the cold, damp pavement, hear it patter!  
The people now are in a wondrous clatter;  
The gutters by the side-walks like little rivers seem,  
As falling drops of rain in the last sunlight gleam;  
How thankful is the country!—as for the city, never;  
Its people cannot stop to praise our God, the giver;  
For 'tis very inconvenient thus to have it rain,  
And be upon the street with such a lengthy train.

*For the New England Farmer.*

### FARMING, OR A LOVE FOR THE PROFESSION NECESSARY TO SUCCESS.

"If you would succeed in business, you must be in love with your profession."

Perhaps some of the more sensitive and would-be-refined will object to applying the above maxim to the profession of agriculture; and no doubt such will say, "It might very appropriately be applied to some of the more popular or literary professions; but to apply it to the lower order of professions verges almost on the vulgar.

I, however, shall object to such a verdict, and hope and trust to convince those who have looked down upon us, that husbandry is not a low pursuit, but an honorable, high-toned and profitable profession; and when carried out to the letter, sure to return happy results. But to be successful, you must be in love with the profession.

You may ask how? In what manner? Well, in the first place, you must love to work; love the farm, and all connected therewith, both in regard to profit and pleasure; and take a deep interest in the full development of all its parts. The shrewd, calculating farmer will not do his work "by the halves;" he does it in such a way that he will secure the whole crop.

He loves to see his fields well manured, well plowed, well harrowed and thoroughly pulverized. He will now take great pains to get the best variety of seed, and put it in the ground in a thorough and judicious manner. He will then not only love to, but most assuredly will have the pleasure of seeing the young blades look thrifty, and finally, of gathering a bountiful harvest.

He will love to watch the tender plants, and nourish and protect them from noxious weeds or deadly vermin; and will hail with joy the first opening bud or blossom. His interest, care and protection extends equally to the most delicate garden plant, struggling for life between weeds and weather—the tender blade of corn, pointing heavenward, for the sun's genial rays, as well as the sturdy potato, and other hardy plants, which almost defy wind or weather. The farmer is the faithful guardian of all; and he will watch over all with a jealous eye, if he love his profession. He loves to contemplate his growing crops, as one leaf after another is put forth, until at length, the full ear is formed, and all is well stored in his ample barns.

A model farmer will have his fields, as well as pastures, suitably divided. He not only has a system of rotation of crops, but of fields and pastures, as well; each being used alternately. And if his fancy leads him that way, he will form beautiful and picturesque scenery, and at the same time make it a source of profit, by planting fruit, and other valuable trees and shrubs, around his fields, as well as by the roadside and around his dwelling; and especially will he take great pride in making everything around his home wear a cheerful look. He will have the choicest of fruits and flowers in his garden, the grounds of which will be both ample and tastefully arranged.

Nor do I overstep the bounds of propriety or probability, if I say, he loves to see his wife or daughters engaged with interest in the flower garden; he loves to see them and the roses blooming together; he loves to see everything enjoying life, happiness and prosperity.

And when at length his fields are "white unto the harvest," when his choice fruit trees are bending their branches with a precious burden, and the "golden harvest" of bright, long, yellow ears of corn, and the more modest pumpkin, meet his eye, what a source of pleasure is here! With what a joyous heart, and with what renewed energy does he ply his skill, until all is secure; and with what gratitude and thanksgiving does he raise his thoughts to the Giver of all good!

His crops all secure, the faithful farmer, true to his calling, loses no time, but again speeds his plow, and prepares for another year. There are stone to dig, ditches and drains to make, land to clear, and other improvements to make; all in their turn, and each in its most appropriate season. And for all this multifarious business, the farmer finds ample time; for his whole heart is in it, and his plans are well laid. He finds what many are seeking after in vain—because they do not seek aright—employment; which begets health, wealth and contentment; and these beget happiness. The secret of all is, "love for the profession;" "love of employment."

And when at length the snows of winter begin to fall, and cold, wintry winds howl around his dwelling, the faithful farmer has the satisfaction

of knowing that all around him are comfortable ; he loves to retire at night, with the happy consolation that nothing dependent on him suffers from cold or hunger.

The farmer not only takes pride in raising good crops, but he also takes pride in raising good stock, which he finds both a source of enjoyment and profit. He loves to feed them, litter and keep them clean and comfortable. In a word, he is interested in their welfare ; for what is for their good, is for his benefit. He loves to have them hearty, and to this end gives them a change of food. He loves to see them look sleek, and he knows the "card and curry," with good feed, will do it. But above all, he loves to have the name of having the best stock of cattle and horses in town ; and occasionally have some well known Boston cattle-dealer compliment him with "a bigger pile of 'rocks,' than he had paid anybody else," for his best fat oxen.

Another pastime our hero of a farmer loves dearly ; that is, to sit the long winter evenings with his "gude wife," lovely daughters and promising boys around him ; and all enjoying the good of their labor.

T. P. BAILEY.

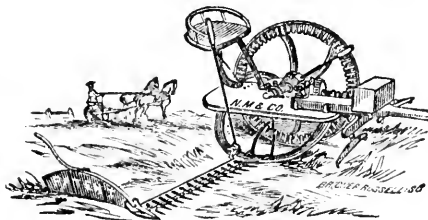
Newbury, Vt., 1861.

#### MOWING MACHINES.

We have frequent inquiries, made both by letter and verbally, in regard to the operation of these machines, and though we have, at various times, published descriptions of the principal ones now in use in New England, we will, to answer these inquiries once for all, give once more the method of construction and operation of the four machines most in use here, referring our readers who are interested in the subject, to the advertisements and circulars of the parties by whom these machines are sold, for such minute particulars, and such recommendations as would be out of place in this article. As to the question,—*Which is the best Mower?*—it is one we are unable to answer. One machine would satisfy the wants of one farmer, while it would operate unsatisfactorily in the hands of another, and we know persons who are equally good farmers, who prefer respectively, the Manny, the Wood, the Ketchum, the Buckeye, the Allen, or some other machine, over all others. Much depends on use, and a man who has accustomed himself to the working of one machine, would with difficulty adopt one of different construction. Each farmer should decide for himself, from observation, or from the recommendations of those whom he considers competent to judge. But we think no one, from a single trial, or from any thing less than an entire season's use, can be able to decide that any machine will answer all a farmer's requirements.

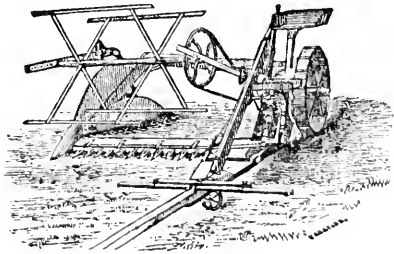
THE KETCHUM MACHINE has, we believe, been longer in the market than any other in New England, and has undergone various modifications

and improvements. As at present constructed, the machine, except the poles or shafts, is made entirely of iron, weighs only 450 to 480 pounds, cuts a swath  $3\frac{1}{2}$  to  $4\frac{1}{2}$  feet in width, and sells for



\$70,00 to \$85,00. The inner side of the driving wheel, towards the machine, is supplied with cogs, which operate upon a small cog wheel at the side of the pole, and at the height of the axle of the large wheel from the ground. By a connection through other gearing arranged very compactly between the pole and the driving wheel, and in front of the shaft of the latter, motion is communicated to the cutter bar, which hangs off to the right of the machine, and which is supported at the heel by a small wheel. The cutter bar is directly in a line with the shaft or axle of the driving wheel, so that when the latter rises or falls, in going over any irregularities in the ground, the knives rise or fall at the same instant. By means of levers, easily operated by the driver in his seat, the machine can be instantly thrown out of, or into gear, or the knives can be raised to pass over any obstruction. The machine is light, durable, compact, and of moderate draught.

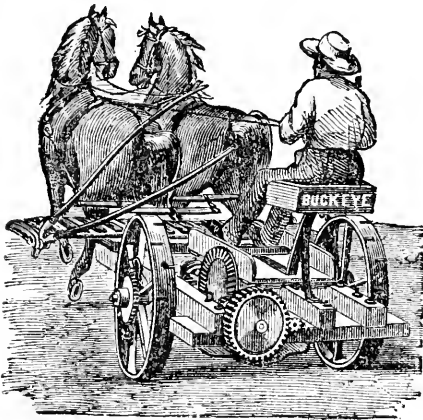
THE MANNY MACHINE is the next in age to the Ketchum, and like that, has been the subject of numerous improvements, some change in the minor details being made nearly every year. The machine runs upon one driving wheel, which supports the frame, and the shaft of which carries the machinery by which the cutter bar is operat-



ed. A small wheel runs under the foot of the pole, which helps to support the weight, and adds steadiness to the machine, and the outer end of the finger bar is supported by another small wheel. The machine is heavier than the Ketchum, weighing 650 pounds for the large two-horse machine. We do not know the price. One peculiarity of

this machine is the reel, which presses the grass against the cutter bar, and causes it to fall behind it when cut, an advantage in operating on hillsides, or in going in the direction of the wind. A reaper attachment goes with this machine. We have not the means at hand for a fuller description of the Manny. It is a machine which has given great satisfaction to New England farmers, and hundreds of them are in use in these States.

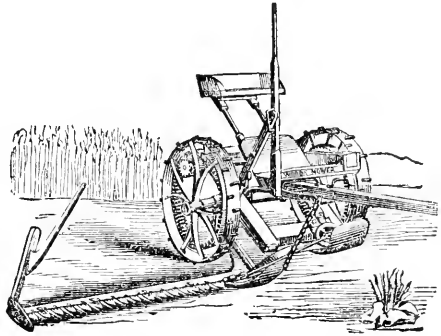
THE BUCKEYE MOWER was introduced into New England in 1857. The machine is heavy, cuts a swath from  $3\frac{1}{2}$  to  $4\frac{3}{4}$  ft. in width, and sells for \$85 to \$120. It runs upon two driving wheels, either one of which, when in motion, will operate the knives, so that a sharp corner can be turned without stopping the working of the machine. Motion is communicated to the knives by a bevel wheel upon the shaft of the driving wheel, which carries the shaft of a cog-wheel placed at the back of the frame, and revolving in a direction at right angles with the line of motion, and which in its turn communicates motion by means of a pinion to a shaft passing under the axle of the driving wheels, to the forward end of which the cutter bar is attached. A small wheel supports the heel of the finger-bar, which, by means of a double hinge joint, rises or falls, to accommodate itself to ir-



regularities in the surface of the ground, independently of the position of the driving wheels. When the machine is not in use, the finger-bar can be folded up so as to lay across the frame in front of the driver's seat. By means of a lever, which can easily be operated by the driver, the finger-bar is raised to any desired height, to pass obstructions. The machine is of light draught, and well made.

THE WOOD MOWER was introduced here two years ago. It is a small and light machine, weighs from 450 to 514 pounds, and costs \$70,00 to \$80,00, cutting a swath  $3\frac{1}{2}$  to 4 feet in width.

It resembles the Buckeye in having two driving wheels, but in other respects, is essentially different. About 4 inches inside of the rim of each driving wheel is an inner wheel, the inner circumference of which is furnished with cogs, revol-



ving a shaft parallel to the axle, and raised higher from the ground. Upon this shaft, under the driver's seat is a bevel wheel, which communicates motion to a shaft at right angles with the axle, and to the forward end of which the cutter bar is connected by means of a crank pin attached to a balance wheel. The finger-bar is raised by means of a lever in front of the driver's seat, and the machine can be thrown out of gear by raising pawls which confine the pinions on each end of the driving shaft. The attachment of the cutter-bar to the machine, is such that in striking any obstruction it relieves itself, and the finger-bar will thus pass over obstacles six inches high, without stopping the machine, or interfering with its operations. By removing one bolt, at the heel of the finger-bar, that portion of the machine can be detached, and laid across the frame for transportation. A reaping and self-raking attachment goes with the machine. The Wood mower is a light machine, of easy draught, and made in the best manner, so that its durability or efficiency is not affected by its light weight. Three sets of knives are supplied with this machine, and two with each of the others. In both the latter machines, the knives do not vibrate when the machine is backed, only the forward motion of the driving wheels, or of one of them, if the other is stationary, as in turning a short corner, communicating motion to the cutter-bar.

The machines to which we have thus alluded, are not the only ones in the market, but they are the ones about which we receive the most inquiries, and which are the best known in this neighborhood.

The Ketchum is made and sold by Nourse, Mason & Co., of this city; the Manny is made and sold by Alzirus Brown, of Worcester; the Buckeye is made by John P. Adriance, of Worcester, and sold in this city by Parker, Gannett & Os-

good; the Wood is made by Walter A. Wood, Hoosick Falls, N. Y., and sold in this city by Nourse & Co. Any inquiries about either of these machines can be addressed to these parties respectively.

#### GIVE YOUR HORSES LIGHT AND AIR.

History informs us that a certain emperor loved a favorite horse so much that he had a golden manger made for him. This extravagance appears unpardonable in the estimation of many, now-a-days, and yet it is more pardonable than the opposite extreme—meanness in the treatment of the horse. In looking at the construction of a very large proportion of our horse-stables, I am sometimes led to think that the object of the builder must have been to see how widely he could depart from every principle of humanity and expediency—humanity in compelling a patient and faithful animal to remain penned up in a close, dark and filthy apartment—expediency in thus sacrificing not only the comfort, but the health, and consequently the usefulness and value of the animal.

Light is indispensable to the plant and to the man,—is it less so to the horse? If it is, why? When the tyrants of the old countries sought to inflict their most fearful punishments, next to death, confinement in a dark cell was considered the most severe. Is it reasonable that the horse—whose native home is in the desert and wilderness, where there is nothing to obstruct the free light of heaven—is it reasonable, I ask, that he should not suffer from confinement in our generally dark and gloomy stables? Is it not a shame, in a land like ours, where glass enough for a moderate sized window can be had for fifty cents, that a valuable horse should be shut up day after day in a dark stall or stable? Let every horse owner's heart, if he has one, answer!

Is foul air wholesome for plants? Certainly not. Is it wholesome for men? Most emphatically, no! If not wholesome for plants or men, can it be for horses? The answer is as emphatically, *no!*

Why then are the majority of our stables constructed without the slightest regard to that most important feature, ventilation? In thousands of cases, an animal, than which none other loves the fresh air better, is doomed to confinement for days and nights at a time, in a stable, the atmosphere of which is so foul that a man would die in it. How many of the diseases to which our horses are subject, may be traced to this unpardonable error? I say unpardonable, for no man possessed of either common sense or common humanity would thus punish one of his best and most faithful friends—the horse.

A word in conclusion. Farmers! if you would have healthy, lively, serviceable horses, give them plenty of light. God will supply it, if you will only furnish the means whereby it can be made to reach your stables.

Look to the ventilation of your stables, if you would not have prematurely old and worn out horses. Depend upon it, plenty of light, and plenty of fresh air in your stables, will save you many a dollar in the course of a life-time.—*Cor. Farmer and Gardener.*

*For the New England Farmer.*

#### A WASH FOR WALLS AND ROOFS OF BUILDINGS.

I noticed in your issue of June 1, 1861, a statement in regard to a wash for the walls and roofs of buildings, said to render them incombustible, and much more durable. Through your kindness, Mr. Editor, or some of your correspondents, I should like to know to what an extent, and how long it has been tried, and its merits proved. The cost does not appear to be great, and if it is really what it is recommended to be, it would probably be used to some extent, in place of oil paint; but if otherwise, it would not be policy to use it, excepting in cases where common whitewash would be used.

A cheap and durable wash or paint for buildings, especially among farmers, is an object much to be desired, and your paper seems to be the medium for making all useful hints known to the public. I would also inquire,

1. Whether this wash should be applied cold or warm, and could not a common whitewash brush be used?

2. Could a light coat of oil paint be laid over a surface covered with it, and would it add to its durability to do so?

3. Does it make any difference in regard to the coloring matter used, whether white lead or zinc, or the darker paints in common use? and, of course, I suppose it would last longer on unplanned work, than that which had been planned. Please give the necessary information as soon as convenient, and oblige,

M. A. THOMPSON.

*Swanzy, N. H., June 15, 1861.*

REMARKS.—The "wash" spoken of above was suggested to us by a gentleman who gives much attention to such things, and who speaks of it with certainty. We intend to make and use it, as it strongly commended itself by the use of the ingredients that go to make it up. We hope the gentleman who communicated the matter to us, or any other person acquainted with it, will speak of it.

#### THE BAMBOO.

This plant may well be called useful, for it is applied by the Chinese to such a vast variety of purposes, (some of them indeed better accomplished elsewhere by different materials,) that it may justly be called their national plant. It is reared from shoots and suckers, but after it has once rooted, is not much attended to. The common yellow species extends over all the southern and eastern provinces, but the varieties mentioned by Chinese writers amount to sixty, of which the black-skinned sort, used in making furniture, and the low, fine-branched one, affording the slender twigs employed in the manufacture of writing pencils, are the best known. The tender shoots are cultivated for food, and are, when four or five inches high, boiled, pickled and comfited; but not "the tender buds and flowers, cut like asparagus," as represented by Murray. The roots are carved into fantastic images of men, birds, monkeys, or monstrous perversions of animated nature, cut into lantern-handles and



canes, or turned into oval sticks for worshippers, to divine whether the gods will hear or refuse their petitions. The tapering culms are used for all purposes that poles can be applied to in carrying, supporting, propelling and measuring, by the porter, the carpenter and the boatman; for the joists of houses and the ribs of sails, the shafts of spears and the wattles of hurdles, the tubes of aqueducts, and the handles and ribs of umbrellas and fans.

The leaves are sewed upon cords to make rain cloaks, swept into heaps to form manure, and matted into thatches to cover houses. Cut into splints and slivers of various sizes, the wood is worked into baskets and trays of every form and fancy, twisted into cables, plaited into awnings, and woven into mats for scenery of the theatre, the roofs of boats and the casing of goods. The shavings, even, are picked into oakum, and mixed with those of rattan, to be stuffed into mattresses. The bamboo furnishes the bed for sleeping and the couch for reclining; the chopsticks for eating, the pipe for smoking and the flute for entertaining; a curtain to hang before the door and a broom to sweep around it; together with screens, stools, stands and sofas for various uses of convenience and luxury in the house. The mattress to lie upon, the chair to sit upon, the table to dine from, food to eat, and fuel to cook it with, are alike derived from it; the ferule to govern the scholar, and the book he studies, both originate here. The tapering barrels of the *sang*, or organ, and the dreaded instrument of the lictor, one to make harmony, and the other to strike dread; the skewer to pin the hair, and the hat to screen the head; the paper to write on, the pencil handle to write with, and the cup to hold the pencils; the rule to measure lengths, the cup to gauge quantities, and the bucket to draw water; the bellows to blow the fire, and the bottle to retain the match; the bird-cage and crab-net, the fish-pole and sumpitan, the water-wheel and eave-duct; wheel-barrow and hand-cart, etc., are one and all furnished or completed by this magnificent grass, whose graceful beauty when growing is comparable to its varied usefulness when cut down.—*Rev. R. S. Maclay.*

**HOW TO RAISE PORK.**—The reader will find an interesting and instructive article in another column from our intelligent correspondent, "More Anon," upon the subject of *rearing and fattening* hogs; a subject which demands more attention than it has heretofore received from farmers. Hogs may be kept profitably or unprofitably, according to the manner in which they are managed. A farmer once inquired of us what the price of pork was at that time, stating that he had some twenty hogs to sell. "How old are they?" said we. "Fifteen months, eighteen months to two years." "What will they weigh?" "All the way from two to three hundred!" We slaughtered swine last fall, made from pigs that weighed less than 36 pounds each, *eleven* months before, and the hogs weighed, when handsomely dressed, from *four hundred and fifty to four hundred and seventy-five* pounds each!

As we have stated before, we do not *work our hogs*, either in harness or on the manure heaps. When they have taken their meals and what exercise they please, they retire to a dry, roomy bed, lie down and grow, and make a business of it. An Irishman can overhaul the manure heap much cheaper than the hogs can.

#### CHEMISTRY FOR THE MILLION.

"Chemistry made easy" and applied to all useful purposes, is our object in these articles. We have given somewhat protracted accounts of *oxygen* as one of the most abundant and important elements of matter. If we were to enlarge as much on each of the other fourteen elements, of which, in combination with oxygen and with each other, nearly all known bodies are composed, it would take too long, and the reader would despair of coming to any practical application of these things to the necessities and conveniences of life. We therefore give below a very brief description, little more than a definition, of the other fourteen, requesting that the reader will review what we have said of oxygen, and form as definite an idea as he can from so short a description of the following:

**Chlorine.**—A yellowish green gas, twice and a half heavier than air; exists largely in sea water; constitutes more than half of common salt; enters slightly into all soils, and is essential to their fertility. The most economical way in which a soil deficient of it can be supplied, is in the form of cheap agricultural salt, such, for instance, as comes from fish barrels, or has been damaged by shipping, and is worth little or nothing for other purposes.

**Sulphur.**—A yellow, solid substance, insoluble in water, pretty generally known as roll brimstone; flour of sulphur, a fine yellow powder, or the milk of sulphur (*lac sulphuris*), a still finer powder, nearly white. Sulphur exists in all soils—constitutes a portion of guano, superphosphate of lime, of animal manures and of fertilizers generally. If we were to analyze 86 pounds of ground plaster, we should find it to consist of precisely 32 pounds oxygen, 20 pounds lime, 16 pounds sulphur and 18 pounds water. Derived from the soil and fertilizers, sulphur passes through the food into the animal economy, forming a part of the tendons, skin, horn, hoof, and especially of hair and wool.

**Phosphorus.**—A yellowish substance, of about the hardness of bees' wax, existing in all good soils, essential to the growth of the cereals, grasses, and most other crops. Is supplied to the soil originally from the decomposition of the rocks. Re-supplied to soils exhausted of it in the form of guano, superphosphates and barn manures. Passes from the soils to the crops, and thence to animals, making up a large part of the bones and a considerable portion of the muscles, blood, and some other parts.

**Carbon.**—Charcoal is carbon, mixed with a little soot and ash. Diamond is pure carbon. Plumbago, wrongly called black lead, as used in our pencils, is a less pure form of carbon. Strange as it may seem to our young readers, diamond, charcoal and plumbago, are one and the same

thing, except that in the last two there is an intermixture almost too small to mention, of other ingredients.

*Silicon*.—This is the basis of sand, flint and quartz rock. It is a brownish powder, a little resembling the paint called Spanish brown; is very abundant in nature, constituting probably nearly one-fifth of the entire globe.

*Nitrogen*.—A colorless gas. About four-fifths of the air is nitrogen. The remaining fifth is mostly oxygen. It constitutes a part of all plants and animals; is supplied to the soil in the form of ammonia and the nitrates, as they exist in guano, animal manures, vegetable fertilizers, green crops plowed in, &c.—*American Farmers' Magazine*.

#### THE BARK-LOUSE.

Noticing that considerable attention is now given to this insect, we have read with interest a long article on the subject, published in the *Canadian Agriculturist*. The writer says:

"The insect appears as a small scale, adhering firmly to the bark of the tree, not larger than a timothy seed, of the color of buckwheat, and, if examined in the spring, will be found exactly under that scale, a miniature muscle-shell, filled with round white eggs, which can be easily separated and counted to the number of forty or fifty; by June, these are hatched out, and, if watched, appear as nimble, small, white insects, capable of quick movements, and the next change the observer finds is that all over the bark new whitish red blotches or dots are seen, which, if examined, prove to be the new insect in its shell, the product of one of those white eggs, found in the old scale, the outward covering of the female insect, which, authorities say, after certain changes fixes itself to the tree, deposits its eggs, dies, and leaves its shell as the abode of its young, which, like the parent, in due time quit that shelter to go through the changes peculiar to insect life, to be a torment and a perpetual annoyance in the unceasing round of insect transformations.

"Without microscopical observations it is impossible accurately to describe the way the insect feeds on the tree. The damage done is readily seen, but how the whole twig and limb become diseased by the mere outward puncturing is strange. You break—and it breaks too easily—a twig, and all through it is brown and evidently unhealthy. The part swells, and the bark grows corrugated and tumefied, the branch loses the clean, healthy appearance that it ought to have, and all this from the operation of a small minute scale, only stuck, as it were, to the bark. Evidently the circulation is impeded, and a process of decay has commenced."

The writer regards this parasite about as fatal to the apple tree as the midge is to wheat, and as one that cannot be avoided. He has worked hard to exterminate it, but in spite of all his efforts the disease is increasing among a portion of his trees. Of his own labors and of the remedies tried he thus speaks:

"When I began to plant an orchard some ten years ago, I had no difficulty with my trees, they

throve like willows; but an addition I made some years after never prospered nigh so well, taking many times the attention the first got, all from the parasite increasing in abundance; still I never gave in. I dug and delved, I manured and dressed, kept away weeds, and permitted nothing but root crops to grow amongst them, and that even seldom; I scraped and diligently washed both limb and twig, nay I may say truly, painted with all the washes recommended, tobacco juice, soft soap, bleacher's soda, but in vain; I could not exterminate, only keep under, in a sort of a way, the numerous insects. Latterly I abandoned that wash, and have only used bleacher's soda, calcined sal soda, diluted with lime water, yet they beat me, and this spring you may conceive how diligent I must have been, when with my own hands, I washed away 20 lbs. of that soda, and now at this present moment many of the branches are as black as any hat, home-made or imported."

Mr. Cole recommends, in his fruit book, one part of soft soap with four of water, and a little fresh slaked lime; or a solution of one pound of potash to two gallons of water. Apply about the first of June. A lye of wood ashes is good.

To be of service these applications must be made with brush or swab to the insects on every branch and twig; a task practically impossible in case of large trees.

#### VISITING IN A MEXICAN HACIENDA.

A little before dark we came to the hacienda of Santa Rosita de Cocoyotla, another sugar plantation, which was to be our headquarters for some days to come. We presented our letter of introduction from the owner of the estate, and the two administrators received us with open arms. We were conducted into the strangers' sleeping-room, a long, barrack-like looking apartment, with stone walls and a stone floor that seemed refreshingly dark and cool. We could look out through its barred windows into the garden, where a rapid little stream of water running along the channel just outside, made a pleasant gurgling sound. Appearances were delusive, however, and it was only the change from the outside that made us feel the inside cool and pleasant. For days our clothes clung to us as if we had been drowned, and the pocket-handkerchiefs with which we mopped our faces, had to be hung on chair-backs to dry. Except in the early morning, there was no coolness in that sweltering place. In one corner of our room, I discovered a brown toad of monstrous size, squatting in great comfort on the damp flags. He was as big as a trussed chicken, and looked something like one in the twilight. We pointed him out to the administrator, who brought in two fierce watch-dogs, but the toad set up his back and spirted his acrid liquor, and the dogs could not be got to go near him. We stirred him up with a bamboo, and drove him into the garden, but he left his portrait painted in slime upon our floor.

Our beds were like those in general use in the tropics, where mattresses would be unendurable, and even the pillows became a nuisance. The frame of the bed has a piece of coarse cloth stretched tightly over it; a sheet is laid upon

this, and another sheet covers the sleeper. This compromise between a bed and a hammock, answers the purpose better than any thing else, and admits of some circulation of air, especially when you have kicked off the sheet, and lie fully exposed to the air and the mosquitoes. I cannot say that it is pleasant to wake an hour or two after going to bed, with your exact profile depicted in a wet patch on the pillow; nor is it agreeable to become conscious at the same time of an intolerable itching, and to find, on lighting a candle, that an army of small ants are walking over you, and biting furiously. These were my experiences during my first night at Cocoyotla; and I finished the night, lying half-dressed on my bed, with the ends of my trousers-legs tied close with handkerchiefs to keep the creatures out.—*Anahuac, or Mexico and the Mexicans.*

#### IMPORTANCE OF WHOLSOME BEDS.

Sleep to the working man is emphatically Nature's sweet restorer, reinvigorating the physical system, which through much toil has become weary, and keeping up that flow of life and spirits which is necessary to the performance of the arduous duties of farm life. A comfortable bed, as we are all aware, conduces greatly to one's rest. On this subject, a recent writer says:

Of the eight pounds which a man eats and drinks in a day, it is thought that not less than five pounds leave his body through the skin. And of these five pounds a considerable per centage escapes during the night while he is in bed. The larger part of this is water, but in addition there is much effete and poisonous matter. This, being in great part gaseous in form, permeates every part of the bed. Thus all parts, mattress, blankets, as well as sheets, soon become foul, and need purification.

The mattress needs the renovation quite as much as sheets. To allow the sheets to be used without washing or changing, three or six months, would be regarded as bad housekeeping; but I insist if a thin sheet can absorb enough of the poisonous excretions of the body to make it unfit for use in a few days, a thick mattress, which can absorb and retain a thousand times as much of these poisonous excretions, needs to be purified as often as once in three months.

A sheet can be washed. A mattress cannot be renovated in this way. Indeed there is no other way of cleansing a mattress but by steaming it, or picking it to pieces, and thus in fragments exposing it to the direct rays of the sun. As these processes are scarcely practicable with any of the ordinary mattresses, I am decidedly of the opinion that the good old-fashioned straw bed, which can every three months be changed for fresh straw, and the tick be washed, is the sweetest and healthiest of beds.

If, in the winter season, the porousness of the straw bed makes it a little uncomfortable, spread over it a comforter, or two woolen blankets, which should be washed as often as every two weeks. With this arrangement, if you wash all the bed coverings as often as once in two or three weeks, you will have a delightful, healthy bed.

Now if you leave the bed to air, with open win-

dows during the day, and not make it up for the night before evening, you will have added greatly to the sweetness of your rest, and in consequence to the tone of your health.

I heartily wish this good change could be everywhere introduced. Only those who have thus attended to this important matter can judge of its influence on the general health and spirits.

*For the New England Farmer.*

#### PROGRESS IN THE ART.

MESSRS. EDITORS:—Thinking you might like to hear occasionally from the readers of your paper, I am inclined to pen a few thoughts of my own, though I, by no means, pretend to be much acquainted with the world and its wants. I wish to chat awhile with the farmer, and I know of no better way than through the columns of the *Farmer*.

It is evident that implements for various kinds of labor are daily improving. In this respect, progress is everywhere visible. Probably no class of laborers are receiving, in this way, more assistance from the thoughts and experiments of scientific men, than agriculturists. Now what I wish to suggest is, that farmers and farmers' sons do not improve as they ought by this knowledge. They are willing to travel in the old beaten track of their fathers. They should not depend upon others for all improvements in agriculture; they should think for themselves; they should use their brains as well as their hands. Does some one ask, what improvements can they make in farming? Let us notice one or two, that all might make. At this season of the year, when every one should be busy in preparation for coming spring, even small improvements should not be despised. Much might be done to advantage in fitting teams for their severe labors, even when a good selection has been made. Great pains should be taken to train them aright, especially in walking, that they may do their part of the spring's work easily and quickly. Fast walkers are the fast horses for fast farmers. They save their owners much time, expense and strength. The first part of this assertion is so evident, that I will pass it by, and look only at the saving of strength.

Did it ever occur to the many readers of your paper, that the team which plows two acres per day, exerts itself but little, if any, more than the team which plows but one, provided the first is not forced beyond its usual pace. Experiments in plowing, harrowing, and in most kinds of farm work, prove this statement to be true. If this is so, what an amount of time and money is foolishly wasted, during the seed-time of the year, by many farmers. Why will not men keep good teams, and use them well? It is true, that many of our hill farms are so uneven, that it is impossible for a team to walk fast. I wish some New England farmer would procure the right instrument, and measure the power required to plow a smooth level piece of ground when moving at the rate of two, three and four miles per hour. Let us know the result in black and white. Let us see if we cannot make an economical improvement.

A FARMER'S SON.

*Burlington, Vt., 1861.*

*For the New England Farmer.*

### MIND YOUR BUSINESS.

MR. EDITOR:—This short sentence, mind your business, is very imperative and expressive. It is also very comprehensive in its application, and meaning. It applies equally to you, and to me, and to all mankind; and it says, to each and to all, as plain as language can say, mind your business. It has no respect for particular persons, or professions, or pursuits, nor will it allow any one to dodge the consequences of his own personal responsibility. Its significance will, perhaps, be better understood by a few illustrations of its application and meaning in the language of common, every-day life.

1. It is the language of all in lawful authority, who "say to this man, go, and he goeth; and to another, come, and he cometh; and to their servant, do this, and he doeth it." It applies as well to civil, as to military authority; and it requires attention to the word of command; otherwise, there would be no such thing as authority; but all would be in a state of anarchy and confusion.

2. It is the language of the master to his slaves. I do not intend to touch the merits of slavery, nor to consider the master's right to use this language; but, so long as slavery exists, his language to his slaves is, and must be, in the very nature of the case, do this—do that—do as I tell you—mind your business.

3. It is the language, not only of parental authority and family government, but of Divine authority, addressed to the young, and exhorting them to obedience. "Children, obey your parents in the Lord; for this is right." Mind your business.

4. It is the language of the wise and virtuous, addressed to "evil doers and intermeddling busybodies in other men's matters." Their language to such is, mind your business.

And why may it not be regarded, also, as the language of farmers, of friends, and of equals, mutually addressed to each other, and earnestly urging the importance of attention to business? Mind your business, brother farmers; if you have anything to do, attend to it, for it will not do to neglect it. Farming requires mind; it requires thought and reflection; it requires discrimination and good judgment; and it requires present personal attention. The mind must be engaged in the work. The head, the heart and the hands must co-operate and be united in the work. "Whatsoever your hands find to do, you must do it with all your might." You must work with a will and determination to accomplish your object. You must mind your business.

Many of those who complain that farming is unprofitable, are persons whose minds have never been earnestly engaged in the business. They have been trained up, perhaps, in some other kind of business, and through want of attention to it, and skill in the business, they have failed therein. They have attended to farming only as a kind of fashionable amusement. They have never taken hold of the work in good earnest, and directed all their energies to it. They have had something else to do all the while, and something else in mind to think about—some great speculation, perhaps, by means of which they have been in hopes of accumulating a fortune in a very short

time—something else, besides farming, on which they have relied, to enable them to "turn an honest penny;" and to get a living; and they have, therefore, only occasionally directed their attention to farming, as a kind of dernier resort, when all other means of subsistence fail. To such farmers I would say, with all due deference and respect, mind your business. If farming be your business, attend to it; if speculation be your business, attend to it; but do not think of becoming rich by the former, while you are wasting all your energies upon the latter. You cannot serve two professions any more or any better than you can serve two masters. You will be certain to fail in the one or in the other, and perhaps in both. And you have no right to impute your failure in the business of farming to any other than its true cause, your want of skill and attention to the business. Therefore, mind your business.

There is an old proverb which says, that "if any thing be worth doing, it is worth doing well." Nothing can be done well without particular attention—without painstaking—without skill and effort. At all events, there must be mind in the work. We are so constituted, that we can do nothing skilfully and well, while our minds are inactive, or engaged on something else. Our thoughts must be directed to, and interested in, the particular work we wish to do. If farming be that work, we must mind our business.

Warwick, Mass., 1861. JOHN GOLDSBURY.

*For the New England Farmer.*

### THE SOURCE OF CARBON TO THE PLANT.

MR. EDITOR:—It is the prevailing opinion among most farmers that the carbon of cellulose and woody fibre is obtained from the manure and the soil; and hence the land is manured for the purpose of increasing the amount of carbonaceous matter in it, which is regarded as the true source of carbon. That the growth of the plant is in proportion to the amount of organic matter in the soil, there is no doubt; but, that the plant gets its carbon from this organic matter, I deny, and I shall endeavor to show that the carbonic acid of the atmosphere is the great source from whence the plant derives its carbon. For, if we accept the geologic theory of the earth's formation, we evidently conclude that the first plants did not get their carbon from the soil, but from the carboniferous atmosphere, which contained carbon in great abundance, and was so well adapted to that luxuriant vegetation, which gave rise to the coal formation. And it has been shown by Prof. Liebig, the German chemist, that a plant will assimilate as much carbon growing upon a soil that contains no organic matter, (but it must be well supplied with soluble inorganic materials,) as upon a soil of vegetable mould.

De Saussure ascertained by chemical analysis, that about 1-1000 part, by weight, of the atmosphere was carbonic acid; of which 27 3-11 per cent. is pure carbon. And we find by mathematical calculation, that there are upwards of 25,000 pounds of carbon, locked up by the oxygen of the air, to every acre of land.

The green leaf is enabled, by the chemical influence of the actinic rays of the sun, to deodorize

this carbonic acid, and assimilate its carbon to the growth of the plant. Thus it is evident that vegetation, in the presence of sunlight, has access to an exhaustless supply of carbon.

But, says the farmer, if the above argument be correct, how can vegetable growth be in proportion to the amount of organic matter contained in the soil; and what is the effect of manure upon vegetation?

Manure serves a two-fold object in the vegetable economy: 1st, to supply the plant with a quantity of soluble phosphates, alkalies and silica, which is absolutely indispensable to all vegetable growth; 2d, the organic elements generate carbonic acid, which serves as a solvent for earthy and alkaline phosphates and carbonates; and thus renders the inorganic or mineral food capable of absorption. But the silicates, which are not readily dissolved in acid, are soluble in alkali, and hence results the beneficial effects of adding lime and ashes to clayey soils; as it loosens and renders them less adhesive, and also sets free the alkalies which are locked up by the silica in the forms of feldspar, which is a silicate of alumina and potash. In this way it renders the silica soluble, and thus improves and sweetens vegetation by neutralizing baneful acids, and decomposing noxious compounds.

N. CRESSY.

Rowe, Mass., June 22, 1861.

#### MOWING MACHINES.

A few days since we had the pleasure of engaging in the operation of four different mowing machines, on the farm of GEORGE M. BARRETT, Esq., of Concord. The machines used were a two-horse *Manny*, a two-horse *Buckeye*, a one-horse *Wood*, and a one-horse *Buckeye*. Each machine did unexceptionable work, and at the rate of about one acre an hour.

The first piece of ground entered upon was level and the grass light. The lots had been laid out by Mr. Barrett, the day before, as near each other in size as he could make them without actual measurement. The lot assigned to the one-horse *Buckeye* was cut in the shortest time, cut perfectly, and with ease, though cutting a foot less in width than either of the two horse machines. Although the machine did its work admirably, a considerable portion of the credit must be imputed to the quick and even motion of the horse, being just that short, prompt step that gives a mowing machine its full power.

The second lot entered upon was in a narrow valley, and extending up hill on either side,—one side having quite a sharp ascent. The clover stood knee high, and was very thick; indeed, it was an ambrosial flower-garden, where the spicy pines in the adjoining forest, and red clover vied with each other in filling the air with grateful fragrance.

The two-horse *Buckeye* led the way, turning a double swath through the close ranks of clover in the most gratifying manner. It then took

the sharp hill-side and finished that portion of the field. The two-horse *Manny* entered, did not take a double swath, but cut as handsomely as the most critical eye of the best mower would wish to see.

The one-horse *Buckeye* followed in the heavy grass and fully sustained the reputation it had earned in the first field. The *Wood* one-horse machine was also in motion as soon as the way was clear for it, and performed admirably. It is a wonderfully compact and simple machine, and did all its work quickly and well. Indeed, this trial of mowing machines was the most gratifying that we have ever witnessed. Nothing interrupted it. The machines were put into the grass and went directly along, about their business. There were no nuts or screws loose, no gearing disarranged, no clogging and halting, and no apologies from the operators! The work went steadily on until it was finished. Every man seemed to feel, when he started, that he was certain of success—and he certainly gained it!

We do not wish to be understood, that we had not a decided opinion as to the merits of these machines, from what we saw at this trial, and had seen of them before; but it would be scarcely fair to express them until we have actually operated each one of them ourself. A skillful and experienced person may make an indifferent machine work tolerably well, while one lacking those qualities may make a good machine appear discreditable. A person can only form a true judgment by an actual handling and managing the machine for himself. We have already used eight or ten different machines, and intend to be on the *Wood* and two-horse *Buckeye*, as soon as we can.

At about six, P. M., on the same day of the trial at Mr. Barrett's, we put the one-horse *Buckeye* into a thick piece of timothy and clover, moved by a nine and a half hundred mare, who had only been in a machine once before. We were on the field about an hour and a half, and during that time had eighteen visitors, for whose pleasure, as well as to allow rest to the mare, we stopped several times, and explained the operations of the machine. In that hour and a half we cut an acre, which, in beauty of execution, far exceeded anything that can be done by a hand scythe. There was no clogging, or other difficulty, to prevent continual progress, and with two horses, we have no doubt the acre would have been cut in forty minutes! The cutter bar being only three feet, four inches long, one horse will be able to do the work on a small farm, but as the motion in moving should be a quick one, and the draft is constant, he should be allowed to stop once in ten or fifteen minutes and rest. Even with these allowances an acre may be cut in an hour and a quarter.

*For the New England Farmer.*

#### ABOUT DOGS.

MR. EDITOR:—I had thought that we had heard about enough of the case of "Dogs vs. Sheep;" but I see that I was mistaken. Mr. H. M. Couch advances some ideas which are worth examining. What a splendid insight he has given into the physiology of the Sheep! Hear him. "They carry concealed between their hoofs a sack of poison adequate for the destruction of quadruple their numbers at any time!" Well, all that I have to say is, that I have seen as much as one sheep's trotters myself, and would be much obliged to him if he would show, or tell me, where it exists. I have never seen such a thing in a state of health, nor heard of it till the dog-fancier, H. M. C., advanced the idea. I do not know what your Massachusetts dogs are, but suppose that they belong to the canine race, which if they do, and are like the same race in the Green Mountain State, they like mutton; up here, they take a wonderful fancy to it; if a man has a few sheep, and does not watch them as close as a cat does a mouse, the next thing he knows they are *non est inventus*, and if he makes an inquiry about the cause, the dog-fancier comes forward and says they have died of their own poisonous contamination!

Seeing in our State that we have not a dog law, the best thing we can do is to arm and equip ourselves with guns, and poison, in lieu of guns, and take the matter in our own hands, by securing every dog that is away from home without his owner. If I had a flock of sheep, I would shoot every dog that came inside the enclosure in which the sheep were kept; for as sure as dog is their name, they would be chasing or killing the harmless creatures that minister so much to the wants of man.

I agree with H. M. C., in regard to the "nearly extirpated crow;" here they lack considerable of being extinct; the best and only means of ridding ourselves of this nuisance is the rifle and strychnine, and then we can hardly live with them at that; the black-coated gentry seem to think every thing is toll that comes to their mill; corn, chickens, young and feeble lambs, grain of various kinds. I would say but little about his grain proclivities, if he would only let our flocks and poultry alone, but as he will not, I declare war against him, to the utmost extent; still, the crow has some good qualities which entitle him to mercy.

One word to our Saugus friend. The reason why the dogs do not kill as many sheep as in your section is, that the owners of dogs are more fearful of retribution, and so keep them at home more; but dogs will be dogs wherever they go, so we have to keep our eyes open and our guns loaded.

REGULUS.

Ripton, Vt., June, 1861.

SUCKING COWS.—Several years ago I had a young cow which persevered in sucking herself in spite of all the rigging I could contrive to prevent her, and the only way I succeeded in stopping her was to tie her up in a stall so narrow that the sides of it would touch her sides, and feeding her plenty of corn meal until she was fat enough

to butcher, and then butchering her. Last spring, I had another likely three-year-old heifer, that had just come in for the first time, commence the same vicious habit. Remembering my former ill success in preventing mechanically, I determined to appeal to her *taste*, which I did by smearing the teats night and morning with soft grease, and then dusting them thoroughly with pulverized cayenne pepper. After continuing the applications about a week, they were discontinued. The cure was perfect, she never having repeated the offence, up to the present time.—*Genesee Farmer.*

*For the New England Farmer.*

#### LOVE FOR THE PROFESSION.

MR. EDITOR:—Having in a former article demonstrated the fact that "the successful farmer loves his profession," I shall now picture to your readers another class of persons who also "love their profession," and who call themselves "farmers," but who would more appropriately be called "shirkers." This class of people "don't believe in killing themselves by hard work," nor in doing anything they can avoid. Still, they are often known to be carrying on a farm "to the halves," and the reason they assign is, that it is cheaper. But I am rather inclined to think it is more on account of a habit into which they have fallen; for they have long been accustomed to doing work "to the halves," even when they worked on their own farms.

True to the maxim, they "love their profession;" to wit, to do what must be done with the least possible labor. This class of farmers love to keep half a team, or none at all; because, say they, it don't cost so much. They love to get over the ground as quick as possible; consequently, they only half plow it, half harrow it, half seed it, with poor seed, because good seed costs too much, neglect to cultivate the growing crops properly, and finally, in a slovenly manner, only harvest half a crop, inferior in quality, and well mixed with noxious weed seeds. Their stock is managed after the same sort; that is, left to take care of itself. In fact, they have no care for any thing; and one would come to the conclusion, to look over their premises, that "care," in every sense of the word, was unknown to them.

Now one would naturally suppose that these fourth rate farmers would soon get sick of this way of doing business; but no, the love of their peculiar profession predominates; and they will go on, year after year, (if they do not run out entirely,) in the same way. The reason is, not that they do not love good crops, or good stock; but because they love their own peculiar habits better. For the same reason, they neglect to keep good fences, which makes unruly cattle and crabbed neighbors. Speaking of poor fences, reminds me of what I once heard a thorough going young man say to a careless father. Said he, "Instead of keeping the cattle out of the field, you have been training them to jump. You at first built a fence only two rails high, and after you found that would not stop them, you put on another rail. Soon, they could jump this, and you put on another, and another, till at length they could jump a six rail fence! Now if you had built a good four foot fence in the first place,

you would never have been troubled with unruly cattle." The above case illustrates the slack system perfectly; the advice given, I consider good.

Nor is this all. The bogus farmer loves poverty better than riches; else he would strive to be independent. But instead, he loves to depend upon his more fortunate (lucky, he calls them,) neighbors, for any thing he does not happen to have. He is, as I heard an old lady express herself, "forever eternally borrowing something or other." He loves to borrow, for he says it is cheaper than to buy.

T. P. BAILEY.

Newbury, Vt., 1861.

#### ERRORS AND REQUISITES IN MAKING BUTTER.

It is often remarked that good dairies cannot be made without good dairywomen, and I take the liberty to assert that it cannot be done by the best dairywomen in the world, unless provided with the necessary conveniences. I would like to see dairywomen having skill enough to make first quality of butter from milk drawn from cows whose temperature has been raised to fever heat by fright and running, yet dairymen sometimes expect this; and will buy the poorest cows, give them about half enough to eat, furnish a very poor milk-room, other fixtures in proportion, and then find fault with their good wives, for not making better butter, and more of it.

On the other hand, there is one fault peculiar to the dairywomen of the country, originating in the fact that each thinks she makes *the very best butter* that is made anywhere. Consequently, the husbands are censured for not getting as much by two or three cents a pound, as some other man does. If I can ever be forgiven by dear women for saying this, (and I know their charity is boundless,) I will tell them how to remedy this bone of contention. Never allow a butter buyer an opportunity to find fault with your butter, but tell him before he sees it, "that if it is faulty you would be pleased to have him tell you the whys and wherefores, and you will in future apply the remedy." My word for it, you will make it pay in the end, to do so.

As to the cows, I make it a point to get those with a good yellow skin, the quality of the milk being very essential in the making of good butter, that of a fine yellow color always having the preference, and such butter cannot be made from cows with pale, colorless skin.

The next point is, food for the cow, which should be of the best quality, and plenty of it. The pasture should be where there is abundance of good sweet feed, with a plentiful supply of water. The quality of feed has much to do with the quality of butter.

The milking should be done with neatness, the milk should be kept in a good cool place, properly ventilated, and everything about it kept clean and sweet. I prefer to have the milk-room above ground, as I think the cream rises better in most kinds of weather, than it does in cellars. We use tin pans placed upon racks for setting the milk, letting it stand a sufficient time for the cream to rise, which is generally, in warm weather, about thirty-six hours, but I think that it requires great care and good judgment on the part of the dairywomen, to see that the milk does not

stand too long before it is skimmed, as, for instance, in very muggy, hot weather. Before thunder storms the milk will sour very soon, and if it is not attended to at the proper time, you will be likely to have a poor churning of butter, which injures the sale of a dairy very much. Hence the state of the weather and other circumstances must govern you in regard to the time you allow the milk to stand before it is skimmed. The cream taken off at night should be set in a cool place in the cellar, and churned in the morning.

Now for the churning process, which requires judgment and skill in regard to temperature of cream. My experience is, that in warm weather it should be about fifty-five degrees Fahrenheit, but the general opinion is from sixty to sixty-five degrees; that I think too warm, though much depends upon the place and state of the atmosphere where you are churning. The cream naturally grows warmer by churning, especially if the air that is thrown into the churn is warmer than the cream, and the reverse—if the atmosphere is colder than the cream, it would grow cold. You should be ruled by circumstances in this matter also. When the butter comes, it should be taken from the churn and the buttermilk worked out. We prefer to wash with cold water, thinking that we can remove the buttermilk with less working than without the water. Then it should be salted with good pure salt, about one ounce of salt to a pound of butter, thoroughly worked in, then covered to exclude the air, and set in a cool place for twelve or twenty-four hours; when it should be worked again sufficiently to free it from buttermilk. The moment that is done it should be packed in the firkin and covered tightly to keep it from the air, and when the firkin is filled it should be covered with a cloth and a strong brine made of salt put on the butter, and kept so until it goes to market.

I repeat the assertion that it requires good judgment and skill to manufacture a fine article of butter, but the cost is no more than an ordinary article, and not as much as a very poor article. Butter will absorb impurities quicker probably than any other article; hence it should be kept away from all impure or strong scented substances if you would keep it from getting tainted with bad odors.

One error in butter-making is over-working, which leaves it salvy, and destroys the grain, lessening the price much. Another is not working enough to remove the buttermilk, which renders it unsaleable. Another is not salting enough, while others salt too high; another is a cheesy substance we sometimes find in cream and butter, which makes it very unpalatable, and injures the sale. All these defects should be avoided, and I think can be, with proper attention.

One great beauty of a dairy is to have it as nearly alike as possible, uniformly of the best, through the season, which can only be done by the greatest care and attention. Ice is very necessary in most localities, especially in the warmest part of the season. Some very fine dairies frequently have what is called "warm weather butter," which injures the sale of the whole very much. What I mean by this is, that in the hottest weather, unless you have ice, or very cold water, the butter will come soft, and it is very difficult to make a fine article.

Without wishing to detract from the credit of Chenango county butter, I think a large quantity of it might be improved from two to five cents a pound, which would well repay extra labor. I desire to advise young women who think of working in a dairy, to learn to make a fine article if they have not already done so, and if they cannot learn effectually without, it would pay them well to go in some place where they know how, and give one summer's work to learn, in increased wages afterward, and eventually in winning golden opinions for their husbands.

I will guarantee any one's success who follows the rules laid down—to attend to every branch of the dairy, just when it requires attention, and to watch the markets closely, making it always a point to sell when buyers are anxious to purchase. If I have failed to give you a satisfactory answer, as to my good luck in the dairy business, I hope some one more competent will take up the subject and do it better justice.—JOHN SHATTUCK, *Chenango Co., N. Y., in Country Gentleman.*

#### VALUE OF SHELTER FOR SHEEP.

Wm. H. Ladd, one of the best farmers of the State of Ohio, who has given especial attention to sheep, gives the following careful estimate in the *Ohio Farmer*, of the value of shelter to sheep, suggested by the remark of a neighbor, that "It won't pay to build shelter for sheep." This neighbor kept 1000 head and lost many animals, and it was from his losses that a part of this estimate is made :

Let me make some very low estimates in reference to the loss occasioned by this treatment in thirty years. First, if the sheep sheared two pounds of wool per head under this treatment, they would have shorn three pounds had they received good care. Second, one pound difference per head on 1,000 sheep makes 1000 pounds; 1,000 pounds in 30 years, at 40 cents per pound, \$12,000. It is a very low estimate, counting sheep at the lowest common price, that a flock of 1,000 sheep should yield \$500 worth of surplus stock to sell each year; this in 30 years amounts to \$15,000. Feed saved by shelter, say \$200 each year, worth, in 30 years, \$6,000; simple interest at 6 per cent. on amount saved in 30 years, \$30,690; difference of the value of the flock on hand at the end of 30 years, \$1,000; value of shelters to the proprietor at the close of 30 years, \$1,000; amount saved, \$65,690. Per contra—shelters cost say \$3,000; additional grain fed, say \$100 each year, in 30 years \$12,000; interest as above, \$16,560; for keeping shelters in repair, \$1,000—total \$32,560. Difference in favor of shelters and good care, \$33,130. Don't look at this as a fancy sketch; it is a reality, and the only incorrectness about it is, that the estimated difference in favor of good keeping is in every particular below the reality.

COE'S SUPERPHOSPHATE OF LIME.—We have before us two or three letters from JOSIAH WHITE, Esq., of Petersham, Mass., ordering of Nourse & Co. at different times Coe's Superphosphate of

Lime. In one of these letters Mr. White says :—  
"I am realizing great benefit in the use of the phosphate by the check it gives the wire worms; my neighbors on all sides are losing nearly their whole crop of corn in consequence of the ravages of these pests."

Mr. White is one of our best farmers—a gentleman qualified to make accurate observations upon the operations which he undertakes. His testimony in regard to this, or any other manurial agent, is entitled to the highest respect. We are experimenting with this phosphate on our own farm, and intend to state results by-and-by.

#### THE OLD WOODEN PLOW.

##### A STAFFORDSHIRE DITTY.

Up by the Blake Mere o' Murridge not long time ago,  
There lived an old chap, wi' an old wig o' tow,  
His name was Tom Morris, and I'll tell you how  
He made a discourse on an old wooden plow.

Gee ho, Dobbin; gee ho, Dobbin; gee ho, Dobbin!  
Gee up and gee ho!

'Twas the tenth of October, and though oats were just ripe,  
On the settle he sat, and he smoked his long pipe;  
And he thought a long time about this thing and that,  
And said "Tommy! sit down, and I'll tell thee what's what."  
Gee ho, Dobbin! &c.

"These are terrible times, lad, prithee come nigh,  
And I'll gie thee a wrinkle or two ere I die;  
I can't stand it much longer, it shortens my breath.  
These new-fangled notions will soon be my death.  
Gee ho, Dobbin! &c.

"They're going too fast, lad, I tell thee, a deal;  
There's Lord Talbot, o' Ing'stre; and Ralph Sneyd o' Keel;  
And Sandon, and Buller, and Main'ring, and Bill—  
Lord, the stuff they've been taking, it makes me quite ill.  
Gee ho Dobbin! &c.

"With their bones and their acid; their drills and gu-hanner;  
Thy grandfather, Tom, niver farmed 't that manner;  
He'd a stared hard enough, if he'd heard what they say  
About boiling o' oil cake, and chopping o' hay.  
Gee ho, Dobbin! &c.

"Then soughing's a thing as in course they mun alter,  
So they go a mon's depth for to get at th' top water—  
And they scoop out the dirt wi' a thing like a spoon,  
And for tiles! they'll be using o' bacca pipes soon.  
Gee ho, Dobbin! &c.

"Then they prate o' their carrots and mangels, and sich—  
As if carrot and mangels would make a man rich,  
Of hoeing o' turnips, and clearing o' yallows—  
Stuff and nonsense! and growing o' wheat without fallows.  
Gee ho, Dobbin! &c.

"It makes me to loff! without fallows indeed!  
Why, I think they mun ha' a soft place in their head.  
But what dun ye think they've been doing just now?  
Why, they've got up a loaf at an old wooden plow.  
Gee ho, Dobbin! &c.

"Aye! an old wooden plow—and they say, to be sure,  
As the wide-awake farmer mun use 'em no more;  
They mun a' be of iron, and wood there's no trade for—  
Why, what do th' fools think as ash trees was made for?  
Gee ho, Dobbin! &c.

"Talk o' plows made o' iron; why, th' next thing they'll do.  
As sure as you live, they'll be painting 'm blue;  
Then they've two tits a breast, as they call a 'gee ho'—  
They may call long enough, but they never can go.  
Gee ho, Dobbin! &c.

"No! gie me a good wooden plow as is strong,  
And a good pair o' big wheels to help it along,  
And four long-tailed tits and a mon and a lad,  
And a good steady place, and it shanner be bad.  
Gee ho, Dobbin! &c.

"But Tommy, my lad, niver heed what they say,  
But get thee on still i' thy father's old way;  
They'll bring all their hogs to fine markets just now.  
But stick while thee liv'st to thy old wooden plow."  
Gee ho, Dobbin! &c.



## EXTRACTS AND REPLIES.

## CAN'T GET THE MILK.

I have a very nice heifer that has a calf some three weeks old. Up to the time the calf was two weeks old we stripped her night and morning after the calf, and as a milker she was all that could be desired. Last Thursday night we found that the calf had not sucked the two front teats, neither were we able to get any milk from them. The teats are soft, the udder is not caked, and one would suppose he was going to get a big stream of milk, but it shoots up into the udder—and a stream not larger than a cambric needle is the best one we can get. I have probed the teats to the depth of five or six inches, meeting with no sort of obstruction—and producing a benefit that is scarcely perceptible. The teats are soft and natural, and no signs of inflammation exists. Such, I believe, comprise all the facts in the case; now if you will give us the cause and cure, you will much oblige a constant reader of the *Farmer*.

A. P. SLATER.

*Somerset, June 25, 1861.*

REMARKS.—The orifice through which the milk passes is sometimes obstructed by being trodden upon, or by disease. When this is the case we have known a complete remedy gained by grinding one part of a pair of scissors sharp on both sides, and pushing it up the orifice in the teat with care. Take hold of the teat with the fingers of the left hand, and take hold of the scissors with the thumb and finger of the right hand, and with a quick but gentle push, cut the orifice so that a free stream of milk will flow out.

## "OVERFEEDING OF STOCK."

Farmer Sheldon, of Wilmington, remarks in his letter to Mr. Proctor that he has attributed the "cattle disease," so called, chiefly to overfeeding. It may not be easy to demonstrate this theory of the disease; but it has enough of plausibility, to commend it to investigation. As the learned Secretary of the Board of Agriculture has devoted many of the pages of his last report to this disease, and as a large proportion of the agricultural appropriation from the Treasury of the State for the last three years, has been thus applied, I respectfully suggest the topic to the consideration of the Board of Agriculture, and hope that Mr. Dawes, Mr. Loring, Mr. Grennell, or some other equally intelligent and persevering member of the Board, will give it their attention. I would not presume to dictate—but surely there can be no harm in the suggestion—as it is said "a cat may look upon a king." ESSEX.

*June 22, 1861.*

## CROPS IN NEW HAMPSHIRE.

The fruit crop is a total failure, with the exception of apples, and they are mostly bitten by the curculio. Wild berries promise well; strawberries abundant; grass good and forward; corn backward and failed to come up well in many cases; other grain and potatoes look as well as usual at this season of the year. A. J. DODGE.

*Francestown, N. H., June 22, 1861.*

## THE CHAFFING MACHINE—EXPLANATION.

In your reply to E. S. Fletcher, inquiries respecting the Chaffing Machine alluded to by "K. O.," you suppose that a common hay or straw cutter is meant. It is not so. The machine crushes first and then cuts very much finer than any other I have ever seen. A large quantity of the chaff is not much thicker than a wafer.

It is called the Telegraph Tedder cutter No. 1, made by T. H. Wilson & Co., Harrisburg, Pa., Patented in Feb., 1858.

JOSEPH COE.

*Rochester, June 24, 1861.*

## PLASTER ON MOWING LANDS.

Would it be beneficial to spread plaster on land immediately after the grass is taken off?

How much would be the best quantity per acre?

In slaking the lime for the incombustible wash, should it be dry when it is done slaking, or thin enough to run?

A. F. FLAGG.

*Sheepscoot Bridge, Me., 1861.*

REMARKS.—Certainly. It would undoubtedly be economical. Sow two or three hundred pounds per acre. The lime should be dry.

## TO KEEP FOWLS FREE OF VERMIN.

Throw all the refuse from your onions into the hen-house, and all vermin will soon quit the premises.

H.

*New Britain, Ct., 1861.*

## CHEMISTRY FOR THE MILLION.

*Hydrogen*.—A colorless gas, about fourteen times lighter than air, used on account of its levity for filling balloons. Water is composed of one part by weight of nitrogen to eight parts of oxygen. If you simply heat a gallon of water it will expand into some 1700 gallons of steam; but if you decompose a gallon of water, that is separate the oxygen from the hydrogen, it makes 1000 gallons of the former, and 2000 of the latter; and then if you mix the two and set fire to them, they return back with a violent explosion, to one gallon of water. It is quite possible to educe light and heat from water, but as no economical mode of doing it is yet discovered, we shall probably have to resort to other materials for replenishing our hearths and lamps a while longer yet, notwithstanding Mr. Paine's promises to the contrary. We do not despair, however, of important discoveries being yet made in this line; and if they should be, let us not be more surprised than our fathers would have been at the thought of sending our errands by electricity across the ocean in a second, a thing which we hope is on the eve of being done.

*Iron*.—This is too well known to require us to speak at large here. In another place we shall illustrate facts concerning it of great importance to the farmer as well as to many others.

*Manganese*.—This is a metal somewhat resembling iron. Like iron it exists in most soils, like that it is never found separate from other substances, but has to be prepared like iron by separating it first from other matters with which it is combined.

*Potassium*.—This is a brilliant silver-white metal, light enough to swim in water, and so combustible, that it takes fire and burns with a great heat, on falling upon water, however cold, or ice. It is the basis of potash; and it exists in all soils, as variously compounded with other substances, also in all plants, and in the animal tissues.

*Sodium*.—This is the basis of soda; is a dingy whitish metal, comparing in appearance with potassium about as copper does with silver; is lighter than water; floats on water and takes fire, if the water be a little warm, but is not enkindled, like potassium, by cold water or ice.

*Calcium*.—This is a yellowish white metal, and is the basis of lime. It is very abundant in all limestone regions.

*Magnesium*.—A white, shining metal, the basis of the magnesia of the shops.

*Aluminum*.—The basis of clay; a bright silver-like metal, not easily rusted, having nearly the strength of iron, with little more than the weight of wood.

Of these elements, it will be perceived that four, oxygen, chlorine, hydrogen and nitrogen, are gases. Four, sulphur, phosphorus, carbon and silicon, are solids, at ordinary temperatures. Seven, iron, potassium, sodium, calcium, manganese, magnesium, and aluminum, are metals.—*American Farmer's Magazine*.

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*For the New England Farmer.*

#### MOWING MACHINES AND BORERS.

MR. BROWN:—I noticed in your paper of June 15th, an article about mowing machines, by Mr. Shaw, of Kensington, and also a week later, a reply by Mr. Draper. I think that Mr. Draper is about right; and Mr. Shaw is evidently much mistaken, if he thinks there is no other mower but the Manny that is fit for, or will work on uneven ground.

I am a young farmer, interested in labor-saving machines. About a year ago, there was a trial of machines at Durham; and as I thought of buying a machine, I attended the trial for the purpose of examining the various machines there exhibited; and I formed a very favorable opinion of the Buckeye machine; in fact, it was generally acknowledged that it did the best work, though many doubted its adaptation to uneven ground, and for this reason purchased the Manny. On my return home from the trial, I told my father that I considered the Buckeye best of all the machines exhibited. He immediately purchased a Buckeye machine, with which we cut the last season seventy-five acres of grass; some of the ground was very uneven; notwithstanding this, the machine worked well, and equaled our expectations. In short, it never failed to work well when the knives were in good order.

The second time we used the machine, was on a very rocky piece of ground; the result was, that we broke three knives; and the next day, the report had gone through the town (by some persons interested in the Manny machine) that we had broken all the knives, and could not use it, &c. We ran the machine against stumps, stones, and bushes, and in one instance broke the draught-chain, (by the way, we used oxen instead

of horses,) without any apparent injury to the machine.

We once used the machine on a very uneven piece of ground, being on a bank by the side of the river, and at an angle of nearly forty-five degrees; it did the work well; and a person visiting the spot a few days after, would hardly believe that a machine could be used on such ground.

We have taken out rocks (when driving at full speed,) weighing from fifty to eighty pounds each; and where was the machine? Mr. Shaw will ask. I will answer by saying, that it was going right along, cutting the grass as well as ever.

I don't pretend to say that driving against such obstacles may not injure the machine; but I do say that every hassock, as Mr. Shaw indicates, will not stop the machine.

I am in no way interested in the sale of mowing machines, and will not attempt to put down, or speak against any machine; but will only speak of the merits of the Buckeye, which I know from experience.

I did not think of writing till after reading Mr. Shaw's article. I think that too much confidence is often placed in the recommendations of agents, and thereby that persons about to purchase machines are deceived. My advice to persons about to purchase machines, is to be present at some trial and judge for themselves.

I notice that some of our young apple trees are troubled by the borers. Can I do any better than to dig them out? Would not ashes, or something similar (if placed around the trees at setting) prevent the mischief? Perhaps you, or some of your subscribers can give the desired information.

V. M. COLEMAN.

*Newington, N. H., June 25, 1861.*

REMARKS.—Destroy the borers with a wire, or something else. Ashes will not prevent their depredations.

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*For the New England Farmer.*

#### HOW TO GET TURNIPS.

MR. EDITOR:—As I was passing through Middleton to Andover, yesterday, I noticed on the margin of the brook, near the residence of the venerable Deacon Stiles, (now near eighty years old,) several acres covered with a verdant green. On inquiry, I found these acres were cultivated by his son, Mr. Hiram O. Stiles, with turnips, an article that he has supplied to our market earlier and better than any other man, for a half dozen years last past.

I was curious to learn of him how this culture was carried on. He unreservedly told me how he managed; and at the same time said others could do the same if they would take the same care he did. First, he plows with a Michigan plow, about eight inches deep, and thoroughly pulverized the soil, applying at the same time a moderate dressing of well-fixed manure; sometimes a little guano, and all the ashes he can readily command. Having levelled the surface, he distributes the seed in rows about sixteen inches apart, and thins out the plants, so as to leave sufficient space for the bulbs to expand. He takes care that no weeds are on the ground, be-

lieving that the turnips mature better without their company. He plants his seed as early in April as the land is ready, (the present year from the 15th to the 20th,) and have the plants ready to gather in about two months after planting. Some years he has sold 10,000 bunches, at an average price of six cents a bunch; the present year he hopes to sell as many. His crops have been annoyed by the maggot, and other insects; but in preparing them for the market, he rejects all that are in any measure marred or injured in their appearance. He is, in truth, a genuine, honest man, a worthy representative of the good old Puritan deacons; one that demonstrates his faith by his works; this is the kind of religion that I think worth cultivating. P.

June 25, 1861.

#### LETTER FROM MR. BROWN.

##### AMONG THE CORN AND FLOWERS.

"For who would sing the flowers of JUNE,  
Though from grey morn to blazing noon,  
From blazing noon to dewy eve,  
The chaplet of his song to weave,  
Would find his summer daylight fail,  
And hear half told the pleasing tale?"

Auburn, N. H., June, 1861.

GENTLEMEN:—Prompted somewhat by business, more by affection and a desire to find that *aqua vitæ*, or water of life, which it is said may be found among the crystal lakes and lofty hills of this State, I am spending a few days in this region. Auburn nestles modestly on the banks of a winding stream which connects the Lesser with the Great Massabesic Lake. These lakes are about two miles apart, and the larger of the two,—it being about thirty miles around it,—is one of the most charming of our New England lakes. It is skirted by good farms, has delightful shores of white sand, smooth, green pastures, or promontories of rock, or a tangled undergrowth of rank vegetation. It is studded with numerous islands, which are often visited by strangers, or the citizens of the neighboring city of Manchester, who have supported a hotel on its westerly shore, and a steamer on its waters. Fine pickerel, perch, and other fish, which may be taken by those who "love virtue and angling," often allure the pleasure-seeking to these islands for a "chowder" and a "fry." Indeed, all that this modern Auburn needs to give it a name co-existent with that

"Sweet Auburn, loveliest village of the plain,"

is the power of the poet's pen. What are the charms of the *plain*, compared with those of the valley, with its surrounding hills, its sparkling waters, murmuring brooks, busy mills, and hum of industry at every turn!

Our ride here was a delightful one. The faithful mare, "Nellie," hitched to the "one-horse shay," myself and wife, (may heaven ever bless her,) made up the party. A shower, the night be-

fore we left old Concord, had suppressed the dust and cooled the road, so that the air was bland and pure, and gave us that delicious exhilaration not to be found under "corks" of the first water, or in the fetid streets of any city. But this bewitching coolness and exhilaration were not all; some *One* had preceded us and planted our way with flowers of exquisite hue and perfume. Who could it have been! Scattered along the roadside, sometimes even under the wheels, was the rather flaunting *Ox Eye Daisy*, or *Day's Eye*, (White Weed,) with its open rays, like a man's thought in his hand, where all may see it. In the low places, the *Sweet Flag* sent up its close ranks, hoisting its purple flowers to contrast with the pale green of its leaves; while near by, on the higher ground, numerous varieties of the *Blackberry*, or *Brambleberry* family were glittering with white and delicate flowers. Here they ran over a large rock, covering it with their numerous runners and delicate foliage, and there, a more aspiring member of the same family nodded his white plumes to us over the wall as we passed along. The aromatic *Yarrow*, not yet quite in bloom, and the *Sweet Fern*, sent up their delicate odors to the breeze, while the *Buttercup* on the edge of "the run," vied with its stouter neighbor, the *Cowslip*, a little lower down and in the pool, spreading out their yellow dresses to the sun, and attracting the attention of the traveller.

But all this was little, grateful as it was, compared to the display "over the wall!" Some unseen hand had wrought wonders there! A world of blossoms! Acres extending beyond acres of the beautiful, sweet clover blossoms, surrounding us with a delicious fragrance, whether on the hill or in the valley, gracefully bowing their heads, and ever sending forth streams of aroma to man and beast and bird; and all seemed to appreciate the blessing—for the birds made the air vocal with their tuneful notes, the steed seemed to receive new life, while our hearts burned with grateful emotion, and our lips could not fail to express our thanksgiving and praise.

There was *harmony* everywhere. The spicy pines sent their odors to the breeze, which were wafted to the fields in return for the fragrance of the clover blossoms or the new-mown hay. They also "sung a hymn," so perfect in its cadences and chords, that human tongue has never yet equalled it—nor ever will. It was

"A noise as of a hidden brook,  
In the leafy month of June;  
Which to the sleeping woods all night  
Singeth a quiet tune."

So, ambling along in this great flower-garden of Nature, I often thought of the ecstasy of Columbus on first approaching our shores—and felt something of it, too. "I know not," says he,

"where first to go, nor are my eyes ever weary of gazing on the beautiful verdure. Here are large lakes, and the groves about them are marvellous.

"As I arrived at this Cape, there came off a fragrance so good and soft of the flowers or trees of the land, that it was the sweetest thing in the world.

"The land is covered with trees and shrubs and herbs of unknown kind, and of rich vegetation. The climate has a soft temperature, the air is delicate and balmy; the land high and with fine verdant hills."

I am gratified in finding the crops on my way looking well. Grass is quite forward, and, with a few timely showers, must produce a more than average crop. Corn is rather higher than it was in Massachusetts when I left—is of good color and promises well. The spring grains and winter rye appear promising. Potatoes have been put in freely, and are coming on finely. Mowing machines will be largely introduced in the haying season, and every one seems to feel the importance of producing the greatest possible amount of the products of the soil.

I find all persons, women as well as men, and boys and girls, full of an ardent patriotism, and a love of country that is willing to sacrifice everything but liberty and honor to maintain its glorious flag. Companies are marching and drilling, young men are volunteering, and women and girls are sewing, and preparing for the departure of their husbands and brothers. The clergy have caught the inspiration, so that the first preaching I heard was a regular war sermon, and well was it sustained by scripture texts. The first hymn sung contained the following verse, which I consider somewhat plucky:

"As sure as God's own promise stands,  
Not earth, nor hell, with all their bands,  
Against us shall prevail;  
The Lord shall mock them from His throne;  
God is with us; we are His own;  
Our victory cannot fail."

The right feeling prevails. The free States are unconquerable, either from within or without.

Your friend, SIMON BROWN.

Messrs. NOURSE, EATON & TOLMAN.

**HOW TO TAKE OUR MEALS.**—The tables of the rich and the nobles of England are models of mirth, wit and bonhomie; it takes hours to get through a repast, and they live long. If anybody will look in upon the negroes of a well-to-do family in Kentucky, while at their meals, they cannot but be impressed with the perfect abandon of jabber, eachinnation and mirth; it seems as if they could talk all day, and they live long. It follows, then, that at the family-table all should meet, and do it habitually, to make a common interchange of high-bred courtesies, of warm affections, of cheering mirthfulness, and that generos-

ity of nature which lifts us above the brutes which perish, promotive as these things are of good digestion, high health, and a long life.—*Hall's Journal of Health.*

#### KILL THE MILLERS.

The following, from a farmer in New Jersey, may be of interest to many. He says:

Some ten years ago I purchased the property where I now live. The former owner, being quite a man for fruit, had set a large variety of trees. The farm was noted for producing more fruit, and a greater variety, probably, than any other farm in the neighborhood.

At the time of my purchase the trees were on the decline. The cherry and plum trees were covered with black knots, and the fruit was wormy and worthless, so that I was about to cut them down and supply their places with shade trees; but disliking to part with the fruit, and observing that the enemies were at one stage of their existence in the form of a miller, my plan was to destroy them while in that stage. With that object in view, and observing that they were fond of a light, in the early part of the summer of 1855, I commenced their destruction. To do this I elevated a brisk blaze about five feet from the ground in the vicinity of my trees. The first evening, between eight and eleven o'clock, the millers destroyed might have been counted by hundreds, which gradually diminished, so that at the end of one week, there were none to destroy. I then discontinued my fire until the latter part of the summer, when I discovered another crop of millers, and again built them a blaze. I have followed the same course whenever the candles have drawn them, to give them a light of their own, which has been twice in the summer. Now for the result: My trees have gradually resumed their former rich green; those knots have fallen from the cherry and plum trees; and this year the crop of Morella cherries has been probably as large as they ever were, and that on trees that were considered worthless five years since, and the fruit, both cherries and plums, not wormy.

#### WHY DO HENS EAT THEIR EGGS?

It has already been stated that eggs are composed chiefly of *albumen*. Now, when fowls are compelled to eat, grind, and digest a large quantity of coarse food, which contains but little albumen, there is a longing and hankering after more nourishment, or something that will supply the waste of their systems, which is daily passing off in the form of eggs. I suppose that this hankering is not unlike the sensation which a man feels who is making an effort to abandon the use of tobacco, although I am not able to speak from *personal experience* in such a matter, having never tasted nor smoked the "devil's weed." Consequently, they are ready to devour anything that is eatable, and as soon as they get a *taste* of eggs, they find that they obtain a large quantity of just the nourishment which is demanded by their systems, and but little time and muscular energy is required to transform it into eggs again.

Another thing, also, which induces hens to eat their eggs, is, they have a hankering for some-

thing that will form a *good shell*; and nothing is better for that purpose than the very shells. Consequently, when the shells of eggs are thrown to hens, when only broken in two, it will often learn them to try a whole shell when the egg is in it.

Fowls, when laying, must have *lime*. I keep a dish of clear lime always within their reach. This is far better than to compel them to pick and work over a lot of mortar, for the sake of obtaining only a small quantity of lime. Every egg shell should be broken into small fragments, and mingled with fresh meat chopped fine, or with scalded meal thickened with milk, or even made thick like mush. By allowing hens to have all the lime they need, the egg shells will be much thicker and more firm, than they will when hens are compelled to find materials for the egg shells only in their food, or in bits of old mortar, or by eating lumps of earth.—*Country Gentleman*.

For the *New England Farmer*.

### HORSE AND CATTLE SHOING.

The following article, on *Horse and Cattle Shoing*, was read before the *Concord Farmers' Club* last winter, by FRANCIS E. BIGELOW, a member of the Club. Mr. Bigelow has had large experience in his business. He looks into the reason of things, and means to progress and improve in his art.

When I first saw the topics for discussion, I was a little at a loss to know what "HORSE AND CATTLE SHOING" had to do with agriculture. But as you discuss Farms and Farm Implements, I suppose you call the horse and ox machines or tools, and as they are indispensable in your work, they must be kept in order.

I will give you some general rules for horse shoing, and note some errors generally practiced in the care of horses' feet. It is generally considered that shoing has accomplished all that can be expected of it. If the shoes are only firm on the horses' feet, when his services are required, little thought is given, whether they are tight and pinch his feet, or are easy and comfortable, so long as he can go without being lame. "No foot, no horse," is a truth, which has been realized by too many when the horse has been harnessed for a ride, of business or pleasure, and starts off, keeping time with his head, with the precision of a drill sergeant.

The horse's foot is made up of a variety of textures, so beautifully combined as to form one complicated but perfect spring, and unless that spring is permitted to have constant freedom of action, it very soon gets out of order, and the horse becomes unfit for use. If horses were properly stabled and shod, they would doubly pay for the extra care bestowed upon them, by the increased service they would render. Too many of our horses are over-driven and over-worked, and not properly cared for when they are put in the stable. Their feet soon get out of order, and the smith is often blamed if the horse is lame, when, in fact, it is more the fault of the owner than the smith. One thing is certain, our horses have not proper stables to keep their feet in good condition; a hard, dry floor is a bad place for horses'

feet. A pen where they can be turned in loose on the ground is a better place, and would keep their feet in better condition.

There is a great difference between horses' feet which work on the farm, and those that travel on the road. The farm horse being on the plowed land, the rains, dew and damp soil keep his feet moist and elastic. But the feet of the horse that travels are liable to become dry and hard, and often contracted. There is no general rule that can be applied to shoeing horses, because there are scarcely two sets of feet alike.

There is no kind of work I am acquainted with that requires more judgment than horse shoing. All smiths pretend to know something of it, but some make bad work. After the old shoes are removed, the next thing is to pare the hoof—and how much? The best rule is to cut away till the hoof will give under the hard pressure of the thumb. Some hoofs require but little, merely enough to level; others, when the hoof grows strong, require more.

One grave error that most smiths practice, is cutting away the frog to make it look clean and nice. This tends to make it dry and hard, and as that is an essential part of the foot, it is better to let nature take care of it. It is my practice to cut off the heels, when the frog is small, to let it have a chance to spread, but some think that unnecessary. When the hoof is contracted, it is best to cut till the hoof is tender and have the shoe removed often. After the hoof is pared in proper shape, the next thing is to select a shoe. If a horse has a thin, flat foot, he should have a heavy shoe. For a strong hoof a lighter one is better. The web of the shoe should be wide at the toe, to give it strength, and narrow and thick at the heels. The shoe must then be fitted to the foot, and *not the foot to the shoe*. This is of more importance than any other part.

Every shoe should be more or less seated on the foot surface, to prevent it from pressing on the sole—but have a perfectly flat surface on the outer edge for the crust to rest on. The amount of seating must be determined by the condition of the foot. For instance, a broad foot, with a flat sole—and thin hoof, will require a wide web and considerably seated, to prevent it pressing on the sole; but a narrow foot, with a strong arched sole, requires a narrow web and less seating.

There should not be too much space between the shoe and the foot, as the dirt will get pressed in and often cause the horse to be lame. One of the most important parts is in fitting the heels; they should not press at all, but be raised from the heels and perfectly level. Some smiths make the heels concave, which has a tendency to contract the hoof. If we should adopt the English mode of shoing, we should have the heels turned in the exact shape of the hoof, which would be a very serious objection to our horses. They have their shoes removed once in four weeks; our custom is ten or twelve, and some get them fastened, to keep them on four weeks longer!

Six weeks is long enough. If the shoe just fits the foot, when it has been on ten or twelve weeks it is drawn forward so that it does not protect the heels, and becomes imbedded in the hoofs nearly a quarter of an inch, and is then very liable to lame the horse, especially if he has corns; consequently we are obliged to have it project a

quarter of an inch or more beyond the hoofs. A clip should be turned up at the toe to hold it firm in its place, and prevent the nails from breaking. Sometimes one on the side serves a good purpose. There is one thing I approve to which some object, that is in scorching the shoe on the foot when it is being fitted on. I do not believe in burning too much, but enough to give it an even bearing. If the hoof is thin, merely scorching is sufficient, but on a strong hoof a light crust can be burned without injury; a shoe will remain on longer, and prevent the nails from driving up through, which always looks bad, and is liable to get loose. Another important thing is, the groove for the nail heads. It should be just wide enough to admit the head. The holes should be punched under at the toe, and straight at the heels, to admit the proper depth of the nail. On this point smiths differ: Some think one inch hold is sufficient, as more would injure the foot; others think one and a half inch necessary. That depends entirely upon the hoof.

The number of nails generally used is from 7 to 10, according to the size of the shoe. Some writers think 5 is sufficient. If it is a light shoe, and fitted perfectly to the foot, 5 will hold, but to remain on ten or twelve weeks, as is the custom with us, more are better. Bar shoes I have not used for several years, as I believe a horse can be shod as well without them. They are clumsy, and keep the frog from growing in proper shape. False quarters can be cured in a short time, with care. The heels should be pared low, and the shoe should be removed once in three weeks, till a cure is perfected; at the same time a gash should be burned or cut at the top of the crack. The false quarter should never be allowed to bear on the shoe. One reason why horses are troubled with corns, is, their shoes remain on so long. The best way to cure them, is to have their shoes removed often, or turn them out to pasture without shoes.

The hind foot is differently formed from the fore foot. Nevertheless, the same principle in fitting is required. One difficulty we have to contend with, is the interfering of horses. That may be prevented by straightening the inside of the shoe, and cutting away the hoof. Sometimes it is necessary to have the inside of the shoe thick, to cant the ankle, to let the other foot pass by without striking.

Over-reaching is prevented by setting the hind shoe back, and let the hoof project over the shoe. That will prevent the shoes from striking. Another mode is to have a high heel calf, and low toe, on the fore shoe, and a high toe and low heel on the hind shoe, which so alters his gait that he will not strike. Various causes have combined during the last few years, to enhance the value of horses, and it has become incumbent on every one, to communicate any information he may have gained by experience and observation, which he believes may be of use to his neighbor, concerning a matter of so much importance as the soundness of the horse's feet.

The matter of shoeing oxen, compared with twenty years ago, is of so little importance that I do not make much account of it. Then four hundred yoke were shod in my shop in one winter; now only about forty yoke. But the shoeing is as important now as ever. No two smiths make

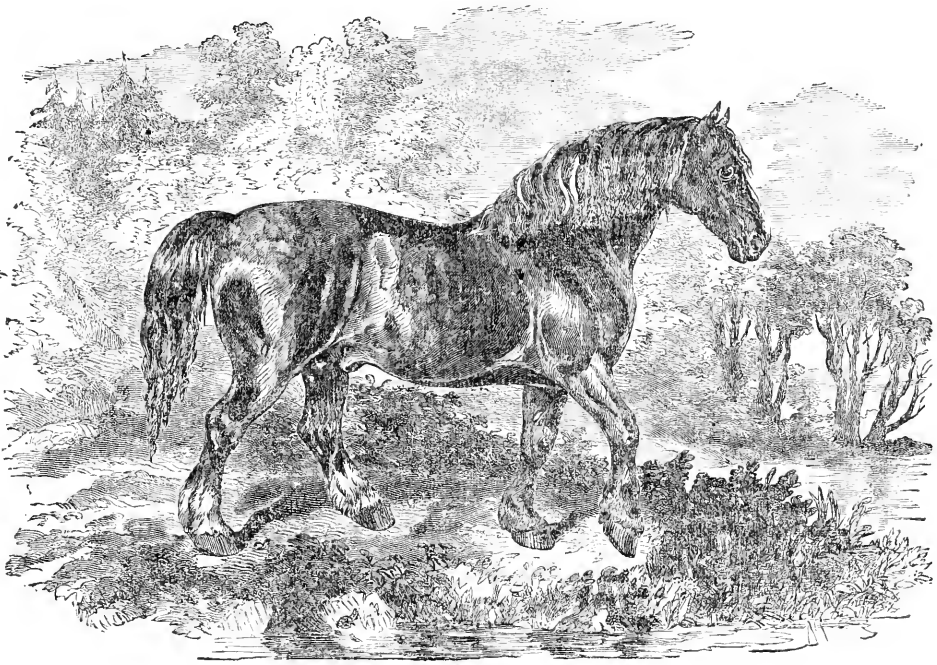
ox shoes alike. The shape is of little consequence, if the outer edge fits the foot. The most important part is in having the shoe properly seated. It should be plated out and left crowning, to prevent it from pressing on the sole, but level on the outside edge, for the crust to rest on. The hoof should be pared level. The holes should be punched under at the toe, and straight and near the outer edge at the heel. From 6 to 9 nails are used, of a small size, as the hoof is generally very thin. The shoe should be more than long enough to cover the foot, as the ox will travel easier than with a short shoe. Most of our oxen are only shod once a year, and their feet are generally very thin. Sometimes it is almost impossible to shoe them without their becoming lame.

#### FISH AS AN ARTICLE OF DIET.

Fish is largely eaten by all classes, and is certainly nutritious. Great differences are noticeable in the different species. Many kinds have large quantities of oil—as the eel, salmon, herring, pilchard and sprat; and these are therefore the least digestible. The oil is most abundant in the "thin" parts of salmon, which are consequently preferred by epicures. After spawning, the quality is very inferior. In the cod, whiting, haddock, plaice, flounder, and turbot, there is no oil, except in their livers; so that these are easily digested, especially if they are not eaten with quantities of lobster or shrimp sauce, agreeable adjuncts, very apt to exact large compensation from the delicate in the shape of acidity and flatulence. Frying, of course, renders fish less digestible than boiling or broiling; and those whose digestions are delicate should avoid the skin of fried fish. They should also avoid dried, smoked, salted, and pickled fish; crabs, lobsters, prawns, and shrimps. The oyster is more digestible when raw, least so when stewed. Dr. Beaumont found the raw oyster took two hours and fifty-five minutes to digest, the roasted oyster 3.15, and the stewed 3.30. What is called "scalloping" gives oysters a delicious flavor, but the heat coagulates the albumen and hardens the fibrine, besides, the effect of heat on the butter in which they are cooked renders it very unfit for the delicate stomach.—*Lewis's Physiology of Common Life.*

**FINE STRAWBERRIES.**—Among the fine strawberries we have seen this summer, was a basket from the Messrs. BUNCE, of Westford, called the *Bunce Strawberry*. They were very large and rich. We understood Mr. Bunce to say that the plants which produce them came from the East Indies several years ago, and that he has continued them pure, and by careful cultivation has brought them to a state of high perfection.

**LAMP LIGHTERS.**—A subscriber to the *American Agriculturist* says: Uninjured straws of rye, oats and wheat, cut in lengths of about six inches, are valuable for lighting candles or lamps. Placed in a glass or other small vessel, on the mantel or shelf they are quite ornamental. The above may be valuable in districts where waste paper is scarce.



THE CLYDESDALE HORSE.

In the Report of the Secretary of the Massachusetts Board of Agriculture, for 1860, we find the cut of the Clydesdale Horse, which we present herewith, together with the description of the breed given by the Secretary. The Suffolk Punch, or English Cart Horse, has long held a great reputation as being the most powerful draught horse in the world. The Clydesdale seems to combine quickness of motion with great strength.

This horse has long been bred with great care and uniformity in that portion of Scotland which also enjoys the enviable reputation of producing the best dairy cattle in the world, namely, the counties of Ayr, Dumfries, Renfrew and Lanark. They derive their name from the river Clyde, which flows through Lanarkshire, where they are very numerous. This breed, like the Morgan, is the natural result of the peculiar circumstances of its location, and has been developed by a favorable combination of soil and climate with the necessities of an enterprising people. In this region, celebrated for its extensive coal mines and prosperous manufactures, as well as for its agricultural thrift, large numbers of powerful horses are constantly employed in hauling heavy freight, and the farmers have wisely and successfully endeavored to produce upon their own soil the animal best adapted to the work.

The Clydesdale horse is about sixteen hands in

height, and weighs from twelve hundred to sixteen hundred pounds. The most common colors are black, brown, bay and gray. They are sufficiently spirited and courageous, but intelligent, willing, free from vice, and very true, steady pullers. Their heads are small and often beautiful, their necks arched, and their legs and feet remarkably good, being of excellent shape, substantial and durable. They are superior travelers, for large horses, and especially famous for their rapid walk, and being often handsome and stylish, they are frequently employed as carriage and stout saddle horses.

Professor Low, in his admirable work, "The Domesticated Animals of the British Islands," says: "The long stride characteristic of this breed is partly the result of conformation, and partly of habit and training; but, however produced, it adds greatly to the usefulness of the horses both on the road and in the fields. No such loads are known to be drawn at the same pace by any horses in the kingdom as in the single horse-carts of carriers and others in the west of Scotland; and in the labor of the fields these horses are found to combine activity with the physical strength required for draught."

On the whole, the Clydesdale horses seem to be as distinct a breed, and as peculiarly adapted to New England as are the Ayrshire cattle; and it is to be hoped that some of our wealthy breeders of horses will distinguish themselves, and benefit the country, by the importation of choice stallions and mares of this valuable stock.

## ENGLISH TURNIPS.

This root probably contains less nutriment in proportion to its bulk, than any other; yet, from the facility with which it is cultivated, it is by no means undeserving of regard. If ten bushels of English turnips can be produced with less actual expenditure of time and capital than is requisite to produce one bushel of potatoes or carrots, the former is certainly the more profitable crop, as no one can doubt that the nutritive value of the former will, upon analysis, be found considerably greater than that of the latter.

On green sward, recently broken and properly prepared, especially if there is an application of some sort of alkaline matter, they do well; so rich crops have been produced on alluvial lands where the deposit was of a silicious description, intermixed with a slight percentage of aluminous earth. But the largest and finest crops we have ever seen were raised on land where the bushes had been recently cut and burned, and the land plowed quite shallow and sowed about the tenth of July. Advantage should be taken of a recent rain, when the seed should be sown, either broadcast or in drills, and slightly covered. If sown in drills, the labor is more at first, but less afterwards; they are more conveniently tended, and will probably produce a larger crop, than when sown broadcast.

The turnip is sowed in corn fields at the last hoeing, to good advantage; and we have not been able to see that it decreases this crop any, coming so late as it does in the season. On old lands that have long been cultivated, it rarely makes a remunerating crop, unless a considerable expense is incurred in the application of lime or ashes, which tend to drive away the worms, with which old land is infested, and which supply the peculiar nutriment which the turnip requires.

In England this turnip is generally fed off by sheep. The seed is sown, either broadcast, as with us, or in drills, and as soon as the crop approximates maturity, a portable fence is placed so as to divide a portion of the field from the remainder, and sheep are turned in to devour the crop, on the ground. When the turnips within the pale are all devoured, the fence is moved, and an additional section included, and so on until the entire crop is consumed. Two advantages are secured in this way, viz.: the labor of harvesting is obviated, and the labor of conveying manure to the field—by no means an insignificant consideration—saved. The best English mutton is made in this way.

When a farmer has a large flock of breeding ewes, probably the best vegetable he can cultivate for them is the English turnip. Fed to these animals during the last stages of gestation, and liberally for a week or so after parturition,

the turnip appears to have a much more prompt and salutary effect in promoting the secretion of milk than the potato, without its physical properties. Before parturition, however, it should be fed but sparingly, as a large quantity would induce too copious a flow of milk, and tend to produce swelling and disease in the udder. Where turnips are given once or twice a day, even in small quantities, a free use of salt, or a mixture of salt and ashes—say one part of the former to two parts of the latter—is recommended.

In our climate, turnips could not be fed where they grew, later than November, but until the last of that month we think they might be fed advantageously in that way.

## CHEMISTRY FOR THE MILLION.

*Carbon, hydrogen, oxygen and nitrogen* are regarded as *organic elements*, because entering largely into organized bodies—plants and animals. All the rest are considered as *inorganic elements*, because not found in organized bodies, except in small quantities—that which constitutes the ash when the vegetable or animal matter is burned; and it should be remembered—what we have before stated—that when an organized body perishes, its organic elements pass into the air and become a part of it, while the inorganic fall as ash, and become a part of the soil, and that whether the body be destroyed by the rapid process of combustion, or by the slow process of decay.

Very few of the above fifteen substances are ever seen in their pure, elementary state, except in the chemist's laboratory; and it is difficult for those who have not seen them to form a just conception of their properties. We have endeavored to give as good an idea of them as we could by mere description, because it is out of these that nature constructs those compounds with which we have to do in actual life—those which constitute the rocks, the soils, plants, animals, our own bodies, even, and all that we see about us.

If two elements combine with each other, they form what is called a *binary* (or two-fold) compound. Three elements combined, form a *ternary* (or three-fold) compound. But it seldom, or never happens, that three elements combine with each other directly. It is a general law of nature, that the elements combine first in pairs, and then these pairs combine with each other. If the warp for a piece of cloth be of cotton and wool, here are two substances. If the filling be of wool and flax, here again are two; but how many are there in the texture? Not four, but three, because one is common to the warp and the filling. So it is with chemical combinations;—sulphur and oxygen form sulphuric acid; oxygen and iron form oxide of iron; now put these two pairs together, and you have sulphate of iron, a ternary, or triple compound. If every farmer in North America, in addition to his practical skill, understood the nature of this one compound, as well as the chemist in his laboratory, it would be worth at least a hundred millions annually to the continent. Millions of acres, now almost useless, would soon be producing valuable crops, and the reclamation



would be at a trifling cost, compared with the value of the increased produce. It is so with a great many other compounds that either enrich or ruin the soil; if the practical farmer understood their nature, he and the whole country would feel the benefit. But can he understand them, and yet be industrious in the practice of his profession? We admit there is some difficulty. A shrewd, common-sense, and pretty intelligent farmer, once said to an editor in our hearing: "You tell us we should know a great deal, but we know nothing more for your telling us that." He was right. The agricultural press has been in fault. It has told the farmer that he should know everything, but has it helped him to know anything of the real science that underlies his practice? Certainly it has, and it has been of immense benefit to the farming interest. But, to our apprehension, it has not done the thing right end first. It has not begun at the beginning, and taught the rudiments of science, and defined its terms, and made itself understood—has not measured out its teachings to the wants of men, who are not students of all day long, but have to catch a little now and a little then, as opportunity occurs. We are resolved to reform in this respect, and the farmer, or the farmer's boy, or the farmer's wife or daughter, who will follow us in these articles, shall not have occasion to say that we have taught nothing practical, or within their reach. Bear with us in one or two more of these rudimentary articles (which we know are dry,) as they are absolutely necessary to a just understanding of what is to follow, and we will be as practical as you wish, will use no jaw-breaking terms that can possibly be avoided, and will come with our chemistry into your every day affairs, and it shall show you not only what sulphate of iron is, but why it sours the soil and how you may sweeten it; not that genial warmth and gentle motion with free access of air makes the "butter come," for you know that well enough, but why it does; nor that yeast makes the bread rise, for you know that better than we, but why; and so of other things both pleasing and profitable for you to know, but which, hitherto, have been known but to a few.—*American Farmer's Magazine.*

**HINTS TO FARMERS.**—Do not discourage a child by giving him a poor tool to use. It is cheaper to use a good tool yourself, no matter what the cost, than a poor one. Ditto for your child.

Money, like manure, to do much good must be well spread.

Always select the best seed of a crop you wish to raise. "Whatsoever you sow that shall you also reap."

A solution of whale oil soap will destroy the numerous insects that infest trees and shrubbery at this season of the year. Dissolve the soap in warm water, making "suds" of medium strength, and sprinkle the leaves with a syringe. This specific is sure death to the caterpillar, miller, and the army of ravagers that destroy the foliage. Now is the time for its application.

Systematic labor accomplishes far more than that without plan or order, and with more ease and success.

### THE OLD GARRET.

Sarcastic people say that poets dwell in garrets, and simple people believe it. And others, neither sarcastic nor simple, send them up aloft, among the rubbish, just because they do not know what to do with them down stairs and "among folks," and so they class them under the head of rubbish, and consign them to that grand receptacle of dilapidated "have beens," and despised "used-to-be's"—the old garret.

The garret is to the other apartments of the homestead what the adverb is to the pedagogue in parsing; everything they do not know how to dispose of, is consigned to the list of adverbs. And it is for this precise reason that we love garrets; because they do contain the relics of the old and the past—souvenirs of other, and happier, and simpler times.

They have come to build houses now-a-day without garrets. Impious innovation!

You man of bronze, and "bearded like the pard," who would make people believe if you could, that you never were "a toddling, wee thing," that you never wore "a rifle-dress," jingled a rattle box with infinite delight; that you never had a mother, and that she never became an old woman, and wore caps and spectacles, and may be took snuff; go home once more, after all these years of absence, all booted and whiskered, and six feet high as you are, and let us go up stairs together, into the old-fashioned, spacious garret, that extends from gable to gable with its narrow, oval windows with a spider web of a sash, through which steals "a dim, religious light," upon a museum of things unnameable, that once figured below stairs, but were long since crowded out by the Vandal hand of these modern times.

The loose boards of the floor rattle somewhat as they used to do—don't they?—when beneath your little pattering feet they clattered aforesaid, when of a rainy afternoon, "mother," wearied with many-tongued importunity, granted the "Let us go up garret and play." And play? Precious little of play have you had since, we dare warrant, with your looks of dignity and dreams of ambition.

Here we are now in the midst of the garret. The old barrel—shall we rummage it? Old files of newspapers, dusty, yellow, a little tattered! 'Tis the "*Columbian Star*." How familiar the type looks! How it reminds you of old times, when you looked over the edge of the counter with the "Letters or papers for father?" And these same *Stars*, just damp from the press, were carried one by one to the fireside, and perused and preserved as they ought to be. Stars? Damp? Ah! many a star has set since then, and many a new-turfed heap grown damp with rain that fell not from the clouds.

Dive deeper into the barrel. There! A bundle—up it comes in a cloud of dust. Old Almanacs, by all that is memorable! Almanacs, thin-leaved ledgers of time, going back to—let us see how far: 184-, 183-, 182-,—before our time—180-, when our mothers were children. And the day-book—how blotted and bleared with many records and many tears!

There, you have hit your head against that beam. Time was when you run to and fro beneath it, but you are nearer to it now, by more than the "altitude of a chopine." That beam is

strown with forgotten papers of seeds for next year's sowing; a distaff, with some few shreds of flax remaining, is thrust in a crevice of the rafters overhead; and tucked away, close under the eaves, is "the little wheel," that used to stand by the fire in times long gone. Its sweet, low song has ceased; and perhaps—perhaps she drew those flaxen threads—but never mind—you remember the line, don't you?

"Her wheel at rest, the matron charms no more."

Well, let that pass. Do you see that little craft careened in that dark corner? It was red once; it was the only casket in the house once, and contained a mother's jewels. The old red cradle, for all the world! And you occupied it once; ay, great as you are, it was your world once, and over it, the only horizon you beheld, bent the heaven of a mother's eyes, as you rocked in that little barque of love, on the hither shore of time—fast by a mother's love to a mother's heart.

And there, attached to two rafters, are the fragments of an untwisted rope. Do you remember it, and what it was for, and who fastened it there; 'Twas the children's swing. You are here, indeed, but where are Nelly and Charley? There hangs his little cap by that window, and there, the little red frock she used to wear. A crown is resting on his cherub brow, and her robes are spotless in the better land.

#### EXTRACTS AND REPLIES.

##### OVERFEEDING OF CATTLE.

I thank you for communicating to the public the sound views of the "Wilmington Farmer" as to "bedding of cattle." It is true there is no man among us better qualified to speak on this subject than Mr. Sheldon. For fifty years he has been employed in teaming, more or less, often having more than twenty yoke of oxen at a time—and surely he must be a dull scholar if he has not learned enough to make his opinion worthy of regard.

I was also struck with what he says of the "cattle disease" as being caused by "overfeeding." May not this term "overfeeding" prove to be a solution of the whole mystery. I do not personally know anything about Mr. Chenery's stable or manner of feeding—but do know he is one of those gentlemen who import animals from abroad without much regard to the expense; and it is not rash to presume he may feed them in the same manner. I think I should place more confidence in the opinion of Farmer Sheldon, than in all the fancy farmers within twenty miles of the city.

A LOOKER-ON.

June 17, 1861.

##### SUPERPHOSPHATE AND WIRE WORMS.

I see that Josiah White in the last *Farmer* recommends superphosphate as a cure for the wire worm. I have a little experience to state, and would like an explanation. I bought three bags superphosphate, two of Coe's and one of Mapes'. The latter I put in the hill for corn on a reclaimed muck meadow. Not a worm was seen during the whole time of preparing the land for planting. In less than one week there were from five to fifteen worms in each hill. One or

two full grown wire worms and the rest appeared to be youngsters, from one-fifth to one-half as large. They were all greedily devouring the corn. It came up pretty well, but it appears to fear the weather above, and is waiting. Please solve the problem. I used Coe's on dry upland with good effect. Was the worm in embryo in the "super," or did it attract the "varmints." Were they little wire worms, or were they a new species of imps? I can find only now and then one left, and they are small. GRANITE QUILL.

*Weare, N. H., July 1, 1861.*

P. S. I had almost forgotten to state that the worm alluded to above did not make his appearance in some one hundred hills manured with strong hog manure.

REMARKS.—Cannot solve your problem, Mr. Quill.

##### KIRBY'S AMERICAN HARVESTER.

As I have a farm to superintend, and wages are high, I obtained one of the Kirby American Harvesters as a mower, last season, on trial. I had a heavy piece of clover, badly lodged, which it seemed impossible to cut with a scythe. I put the two horse machine into it, which cut it all off smooth, greatly beyond my expectations. This year I have obtained one, as I cannot well get along without it. Being a constant reader of the *Farmer*, and seeing the Manny, the Woods and the Buckeye cracked up to the highest notch, I wish to say that I cannot well conceive of any mower doing the work better than the Kirby. Mr. Draper says in a few days after the trial the Buckeye received the first premium over at least six or eight other machines. Now, if I mistake not, the Kirby received the first premium as a combined machine at the Syracuse trial by the United States Agricultural Society, and for ingenious adaptation of cutter to uneven surfaces, at the Syracuse trial in 1857. S. H. WHITCOMB.

*Marlboro' Depot, N. H., June, 1861.*

##### HARD MILKING HEIFER.

I have a young cow, just come in, that shows every mark of making an excellent cow, only she milks very hard. I should be pleased if you, or your correspondents, would inform me if there is any remedy.

FOSTER TAYLOR.

*Williamsport, Pa., July, 1861.*

REMARKS.—We do not know of a remedy. Who will reveal one?

##### APPEARANCE OF THE CROPS.

Grass promises well, especially on land liberally fertilized, though many fields are beginning to show the pinching operations of a want of moisture. For several days there have been indications of coming showers, all of which have passed by without rain; verifying the old adage, "all signs fail in a dry time." Many are now cutting their grass and making it in first rate order. Better cut too soon than too late,—“a stitch in time saves nine.”

Corn and other hoed crops have a healthy aspect—though corn is not near as large as usual at this time. The moderate temperature has checked it. There has been scarcely a day

when the mercury has risen to 80°. Many crops are suffering from the ravages of insects, and the trees promise neither food for man or birds. Cherries none, peaches none, apples few and far between. How it is with wheat and other grains I have not observed. The curse of war is accompanied by the blasts of desolation.

July 1, 1861.

ESSEX.

#### A GOOD DRAG RAKE.

Seeing an article in your paper of July 28, 1860, headed "Raking Made Easy" I had the curiosity to read it. It was concerning a Drag Rake manufactured by S. Heywood, Claremont, N. H. I procured one and find it as you recommend, worth five times the value of mowing machines, according to the amount invested in them.

Marlboro' Depot, N. H., June. S. H. W.

#### A FINE PAIR OF STEERS.

Squire Benson, Jr., of this town has a pair of yearling steers, which weigh 2300 pounds, and girt 6 ft. 3 in. They are of a dark red color with white spots mixed in. If any of your readers have a pair of steers better than these I should like to see them.

A SUBSCRIBER.

Heath, June 25, 1861.

For the New England Farmer.

#### A WORD TO FARMERS.

Alas! that it should be found necessary by the Great Disposer of events, to send so dire a calamity upon us, as the storm of the 16th of the present month, in order to remind man of his Creator.

Each season we have sown in confidence, fully expecting to reap the fruits of our toil; many of us no doubt unmindful of Him who sendeth the rain and sunshine. In a few, short minutes how forcibly He hath shown us our weakness, and our dependence on another and a mightier arm than ours. Wind, rain and hail sent by His hand, have done their work of destruction, wherever they have swept along; as prostrated trees and ruined crops bear evidence.

Terrible! terrible was the scene, as frightened hearts and bloodless lips can testify; and may Heaven avert another such. And yet it is well; both just and proper. This world is not our home. "Here we have no continuing city," and 'tis meet that we should be reminded of another and a better. Yes, too much reliance is placed upon our own strength. Too much thought and time expended in laying up worldly treasure, unmindful, O, how unmindful, of that other "treasure in the Heavens." Our lands are cultivated, our homes adorned with pride, as if we fully expected to stay here forever. In fact, we live as if nothing was perishable, nothing fleeting! And must these things continue?

No, no; let us accept a lesson from the past, and strive for other and better things. Let us in future till the soil with prayerful hearts, expecting nothing of our own strength, but looking to our Father for the "seedtime and harvest." Then we may secure His blessing; then we may grow in grace, prosperous and happy.

Rhode Island, June 26, 1861.

E. W.

#### A POOR MAN'S PLEASANT HOME IN THE COUNTRY.

We copy the following article from the *American Agriculturist*, published at New York, by ORANGE JUDD, Esq. It is conducted with ability, and probably receives as much labor in all its departments as any agricultural paper in the country. We find that, by preserving our copy of it, we have not extracted as we should be glad to from its pages. Hereafter we shall use the scissors upon it.

We hope any reader of the *Farmer*, who owns an acre of land, will read the article below attentively, as it may convince some that they already possess the means of *making a place of their own*, that will far outstrip that of Squire Cash, if they will but steadily apply a *little labor* and a *little money*, each year. Such is the true way to build up a place, because there is as much enjoyment in *producing* it, as can possibly be drawn from it when it is completed.

The first thing is to devise the *plan*, then how easy it is to plant a single tree, set two or three varieties of roses, a pæony, a bed of pinks, or complete a single walk or path in the course of spring or summer. All persons have taste for the beautiful, in some degree,—and no one is so dull as not to admire,—even if too much prejudiced to acknowledge it,—tasteful and attractive surroundings to a dwelling. All our farmers—the very poorest—can do something to break the fierce winds of winter and the scorching suns of summer from their house, and give it an air of neatness and comfort. Yet how many never set a tree, plant a rose, or climber, or shrub, but live on in barren sterility, through two or three generations! Thank you, Mr. Judd; your friend does honor to the name he bears.

It is a prevalent notion that a pleasant country residence must necessarily cost a great deal of money. As we have walked with visitors through the tastefully planted grounds of a certain neighbor, it has often amused and vexed us to hear the remark made, with a long drawn and half envious sigh, "Well, *rich* people can have such fine places, but we common folks must go without them." While the truth has been, that in most cases these grumblers were richer than the envied proprietor; they were richer, but lazier. This fine place cost the owner skillful industry, continued for many years, but not much outlay of money.

It has been our pleasure to visit lately another residence, in a neighboring county, which is the admiration of all who see it, yet which cost but little money, and is the property of an intelligent, hard-working mechanic. The pleasure it gave, and the good example it may afford to others, induce us to give a brief account of our visit:

On alighting at the gate of this gentleman's grounds, we were not struck by the grandeur of the house, or the pretension of the gate-way; by statues, vases, or ornamental structures of any

sort. None of these things were to be seen. The house was an old one, renovated and slightly modernized, with a porch on one side and a piazza on the other, and a little bow-window for plants. The fence was a simple paling, made and painted by the owner's own hands. The lawn in front was not large, but it was indeed a lawn—smooth, closely shaven, and of the finest sort of grasses, and notwithstanding the prevailing drouth, quite green. The trees were well chosen specimens of their respective kinds, evergreens and deciduous, pleasantly intermingled. Mr. Brown, the proprietor, has a strong preference for native trees over foreign, and thinks it almost a test of one's patriotism to think as he does. He is very fond of raising trees from seed, and has a little nursery of all sorts of native seedlings, from which he transplants to different parts of his grounds as occasion requires.

One feature of Mr. B.'s planting attracted our particular attention, viz.: his management of groups. Some were open and wide-spreading, others as close and dense with undergrowth, as the wildest forest. Some were set on the outskirts, with low-branching trees and shrubs and vines, and the foliage was so closely interlaced down to the very ground that the eye could not penetrate it at all. On the margins, were piled boulders and broken masses of rocks, over which wild shrubs and vines clambered, giving the whole a very picturesque air. Gravel walks wound among these groups, frequently leading into the centre of them, where were rustic seats, on which the family or visitor could sit and enjoy siestas, shielded from the sun and from all observation. This was the wildness and seclusion of the forest, in the midst of a highly dressed lawn, and within three rods of Mr. B.'s parlor.

The spaces between these groups were kept mowed, and here and there were circular beds of flowers. For instance, we noticed one bed of crimson petunias side by side with one of pure white. Adjoining these ornamental grounds, but concealed by hedges, were the kitchen and fruit gardens, in which vegetables and the smaller fruits were growing in a healthful and vigorous manner that showed good care.

Leaving this part of the premises, Mr. B. conducted us along a carriage-road leading to a valley in the rear of his premises. Observing that this road was somewhat broken where it ran in a straight line, but smooth where it curved, Mr. B. said he had noticed the same thing, and had ready an explanation of it. Where the road was straight, the hinder wheels of his wagons (which were often heavy loaded) followed exactly in the tracks of the forward, and thereby deepened the rut; but where the road curved, the different wheels ran over different portions of the ground, and therefore did not cut any part badly. So in road-making, as in many other things, utility and beauty run in the same track.

Following this road, we were soon in the midst of a well-wooded valley, down which ran a stream broken by occasional rapids and waterfalls. At the foot of one of these falls, which was about twenty feet high, Mr. Brown had built one or two rude seats. From this point, we followed a path leading by a gentle ascent in various windings up the sides of a tree-covered hill, until we reached the top. This was not a gravel walk, but simply

a wide wood-path, laid out by our host himself, and easily kept in order. This hill proved to be a ridge with several distinct eminences. On each of them the underbrush had been cleared up, and comfortable rustic seats built out of the trees and grape-vines of the surrounding forest. And now came a series of pleasant surprises. From one of these peaks, a view had been cut out through the woods in a southern direction, embracing a wide range of country, hills, valleys, streams, and scattered farm-houses. The landscape in every other direction was left purposely shut out from observation. After resting and enjoying ourselves awhile here, we followed the path down into the forest again, until ere long we turned and gained another summit. Here were home-made seats again, and another prospect, but in an entirely different direction. Before us in the distance, were two valleys converging, with their mill-streams, and factories, and villages. From this point, too, all other views were excluded. Off again, but in the direction of the valley, we followed our host's guidance among the trees, until we came upon a seat built close upon the brink of a precipice, from which all outward views were cut off by overhanging trees and wild vines, but from which on looking *downward*, almost under our feet, we saw the house and grounds of Mr. B., the repose and beauty of which were in striking contrast with the wild spot in which we were sitting. Could anything have been more charming! After enjoying this nook awhile, and listening to the musical tinkle of the stream below, we took up our line of march down into the valley, and thence to the house, where a dinner refreshed us after our long ramble.

Now, we venture to say that there are few places within fifty miles so attractive as this. Yet it was not the property of a rich man. Nearly all these improvements were made by the owner's skillful hands, with only a trifling outlay of money. They were made from time to time, at odd hours, as a means of recreation from other and harassing pursuits, and all within the past seven years. It is true, Mr. Brown had a valley and a hill to work up such as few possess; but then he had also a quick eye, and a ready hand, and a stout will, which seldom fail to accomplish great results anywhere. The fact is, most persons are *too lazy* to effect much; and they are glad of the chance to yawn their complaint: "O, if I were only *rich*, I could have a fine place!" What such men as Mr. Brown have done with limited means, and in so short a time, others may do, if they only possess a like enthusiastic love of rural pursuits, a willingness to sacrifice some other common gratifications, if need be, and perhaps to sweat a little, in order to secure a desirable object.

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RUTLAND COUNTY AGRICULTURAL SOCIETY, VT.—This Society offers very liberal premiums for the present season, and means to make *progress* prominent among the farmers of the county. The officers are:—ALPHA H. POST, Rutland, President; J. M. KETCHUM, Sudbury, Vice President; HENRY CLARK, Poultney, Secretary; W. H. SMITH, Rutland, Cor. Sec.; ZIMRI HOWE, Castleton, Treasurer; HENRY W. LESTER, Rutland, Auditor.

### THE WOOD MOWER.

The following letter was sent to Messrs. NOURSE & Co., Boston, who have handed it to us for publication. Our desire is to lay before the reader such information in relation to mowing machines as we consider reliable, but after doing this, advise all persons to witness the operation of different machines before purchasing. If a mower can be found so good as to be satisfactory, purchase it, and it will probably pay for itself before a better one is introduced.

There is much extravagant expression in the letters we receive in regard to most of the machines. There is no need of this. Each one has its particular merits, and the poorest of them has one or more excellent points which the *best* do not possess. One thing is certain—a great advance has been made within two years, so that any person desirous of calling a mowing machine to his aid can find one that will cut his grass easily, rapidly and cheaply, and one that will last for many years, with proper care.

*Kennebunk, June 24, 1861.*

NOURSE & Co.—Your copy of the *Farmer* was received and contents noticed, and also your letter of the 20th, requesting a report of the Wood Mower from me, which you shall have from experience. Having been the first purchaser of a mower in this vicinity, and that not meeting my expectations, I made up my mind not to make another purchase until I saw a mower that was of such draft and simplicity of construction that it could be managed by a boy and one horse, and do the mowing to my satisfaction, and the time has arrived; the Wood Mower being the one, and the only one as yet, that can do it easily with one horse unless he be a heavy and powerful one. I have had a trial of Ketchum, Alien, Manny, Buckeye and Wood Mowers, the Wood surpassing in every point, being handled as easily as a handcart, and so constructed that the knife bar will follow the surface where the knife bar of neither of the above can, and with two-thirds of the draft on the horse. I have had the trial with the above named, with the Buckeye in particular, that being the next best in my mind, but the Wood is so far in advance that it can never come in after trying the Wood.

I went to a mowing match last season with the Buckeye, with a little span of 850 horses on the Wood, against a span of 1100 horses that were trained to the Buckeye, mowing in all kinds of grass, both lodged, standing, and full of vines, and the Wood made the best work in rough ground and in lodged grass. The Buckeye came to vines in grass, and came to a stand, the driver bidding defiance to the Wood to cut his piece of vines. I took one of the little 850 horses, put him to the one-horse Wood machine, and cut his grass for him to the satisfaction of all present.

I will also state that the Wood Mower is a very strong machine. I have a mower that cut last season some two hundred acres, having run upwards of twenty days; that was run into stumps and rocks a number of times with such force as to bring the horses to a stand without

breaking a thing; the only breaks during the season being three of the fingers, and the machine looks at present as though it had not worked two days. The Wood Mower, for ease in management, strength, durability and lightness of draft, is unsurpassed, as yet, by any invention in the shape of a mower. HENRY JORDAN.

### THE CONNEMARA PEASANTRY.

On this day the country was more animated than usual. Flocks of country people proceeding to Clifden fair came down the mountains. In all the gaps the red petticoats shone and the gay head cloths fluttered. I saw in this short day more lovely faces, more powerful forms and more picturesque groups than I believe I saw during the whole of my Irish tour. So great is the beauty and strength of the Connemara peasants that even the unheard of misery they have endured since time immemorial, and still suffer in their wretched cabins, has not been able to destroy these qualities. In rain and storm, I grant, the unpleasant side is turned outward, and you only see their nakedness and want. But let the morning sun shine over them, and let the pleasant blue of their mountains surround them, then their graceful voluptuous limbs are extended, the black hair is loosed, and the brown eyes speak the language which the heart understands in all regions, and does not forget even in the utmost woe and the utter disfavor of existence. How many pictures of rich scenery and of peasants presented themselves to me this morning. It was a panorama in which you walk from glass to glass, to something ever fresh and ever more beautiful. The brown girls came down the hill-sides in flocks, carrying their shoes and stockings in their hands. Then they sat down by the waterfall by the wayside. They placed their pretty feet in the water and washed them, and left it to the sun to dry and warm them. After which the innocent children of the highlands put on their shoes and stockings, smoothed their hair, looked at their faces in the water mirror, and walked contentedly towards the delights of the fair.

And far on our journey, wherever there was water with a sunny patch of meadow near it, we saw similar groups in their gay dresses, not unlike the fairy beings with whom fancy populates every mountain stream. All at once I came to a scene which reminded me of dreamland. I had passed round the last spur of the hill, and expected new mountains, new heaths, new wildernesses. Instead of that, I stood suddenly, as if by magic, in the most delightful garden, in the pleasantest idyl, such as poets only dream, and legends describe. Almost a thousand feet above the sea, between lofty mountains, and after a tour through brown, foggy mist-land, full of gloomy mud-hovels, in which misery and hunger dwell, the wayfarer little suspecting it, suddenly finds himself surrounded by delicious small houses, like English cottages in flowery gardens. Balconies of green Connemara marble stand over the doors, and everything smells of mignonette. Gentle green hills limit the view on the land side; and on the other, ocean stretches out for an immeasurable distance, and between both, in the happy centre, are the houses of this pretty vil-

lage, and all produces the deepest of piety and morality. No beggars follow the new arrival; all the people who are visible seem happy and well to do, and neatly dressed children play in the sunshine of the broad street. — *Rodenberg's "Island of the Saints."*

#### TRAPPING A TIGER.

A still more ingenious mode of tiger-killing is that which is employed by the natives of Oude. They gather a number of the broad leaves of the *praus* tree, which much resembles the sycamore, and having well besmeared them with a kind of bird-lime, they strew them in the animal's way, taking care to lay them with the prepared side uppermost. Let a tiger but put his paw on one of those innocent looking leaves, and his fate is settled. Finding the leaf stick to his paw, he shakes it, in order to rid himself of the nuisance, and finding that plan unsuccessful, he endeavors to attain his object by rubbing it against his face, thereby smearing the ropy bird-lime over his nose and eyes, and glueing the eyelids together. By this time he has probably trodden upon several more of the treacherous leaves, and is bewildered with the novel inconvenience; then he rolls on the ground, and rubs his head and face on the earth, in his efforts to get free. By so doing he only adds fresh bird-lime to his head, body and limbs, agglutinates his sleek fur together in unsightly tufts, and finishes by hoodwinking himself so thoroughly with leaves and bird-lime, that he lies floundering on the ground, tearing up the earth with his claws, uttering howls of rage and dismay, and exhausted by the impotent struggles in which he has been so long engaged. These cries are a signal to the authors of his misery, who run to the spot, armed with guns, bows and spears, and find no difficulty in dispatching their blind and wearied foe.—*Routledge's Illustrated Natural History, by Rev. J. G. Wood.*

THINKING AND FARMING.—A garden is like those pernicious machines we read of, every month, in the newspapers, which catch a man's coat-skirt, or his hand, and draw in his arm, his leg, and his whole body, to irresistible destruction. In an evil hour he pulled down his wall, and added a field to his homestead. No land is bad, but land is worse. If a man own land, the land owns him. Now let him leave home if he dare. Every tree and graft, every hill of melons, row of corn, or quickset hedge, all he has done, and all he means to do, stand in his way, like duns, when he would go out of his gate. The devotion to these vines and trees he finds poisonous. Long, free walks, a circuit of miles, free his brain, and serve his body. Long marches are no hardship to him. He believes he composes easily on the hills. But this pottering in a few square yards of garden is dispiriting and driveling. The smell of the plants has drugged him, and robbed him of energy. He finds a catalepsy in his bones. He grows peevish and poor-spirited. The genius of reading and of gardening are antagonistic, like resinous and vitreous electricity. One is concentrative in sparks and shocks; the other is diffuse strength; so that each disqualifies its workman for the other duties.—*Emerson's "Conduct of Life."*

#### CLOVER BLOSSOMS.

There's a modest little blossom  
Blooming closely to the ground,  
While its wealth of sweetest perfume  
Thrills through all the air around.  
White and pure a field of clover,  
In the sunny summer day,  
Brings a calm my spirit over,  
Sweet as music far away.

In the rich man's terraced garden  
Many a fair exotic twines;  
Many a gaily tinted flower  
'Neath the glossy foliage shines.  
By the poor man's lowly cottage,  
Violets sweetest odors yield;  
Yet I love the air of freedom  
Blowing from a clover field.

Lilies in the valley growing,  
Roses in their blushing pride,  
These may wreath their regal beauty  
Fidly for the youthful bride.  
Laurel wreaths may suit the poet,  
Forest flowers may lure the child;  
I would only ask the clover,  
Meek and modest, brave and mild.

Little cares my hardy flower,  
Though the soil be poor and dry;  
Blooming by the dusty wayside,  
Blessing all who pass thereby,  
Let me learn the gentle lesson,  
Even in my lowly way,  
Working bravely, like the clover  
In the sultry summer day.

WHITEWASH.—A correspondent of the *Southern Rural Gentleman* gives the following recipe, with the remark that it is a little troublesome to prepare, but a half barrel of it will cover a great deal of surface, be nearly equal to paint, and cost but little.

Into a clean barrel put half a bushel of fresh or quick lime; pour on boiling water sufficient to cover it six inches; stir until well slaked; then pour on about twelve gallons of boiling water, and stir in; have ready two pounds of rice flour, boiled to a thin paste and stir in; add two and a half gallons of linseed oil, two pounds of blue vitriol, and two pounds of Spanish whiting—stir all in while the mixture is hot, and apply with a brush at your leisure.

If desirable, a beautiful cream color may be given by adding to the above wash three pounds of yellow ochre; or a good pearl or lead color by the addition of lamp, vine or ivory black. For fawn color, add four pounds of umber, one pound Indian red, one pound common lamp black. For common stone, add four pounds common or raw umber and two pounds of lamp black.

SPEED OF CIRCULAR SAWS.—For a 22-inch saw, many good mechanics prefer a speed of 3,500 turns a minute, although from 2,250 to 2,500 turns is a more common rate. The periphery of a 21-inch saw, making 3,500 turns a minute, travels at a speed of 19,250 feet or 3½ miles a minute, and every 1-7 lb. of frictional resistance at the points of the teeth, at that speed, is equal to one horse power.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 14.

FLYCATCHING WARBLERS.

American Redstart—Canada Flycatching Warbler—Hooded Warbler—Green Black-capped Warbler—Blue-Gray Flycatching Warbler.

In the *Philomelinae*, the next and third sub-family that we meet with in the extensive family *Sylviadae*, are ranged a small group of foreign species, arboreal in their habits, and remarkable for their melodious and powerful songs. The celebrated Nightingale (*Philomela lusciniæ*) of Europe is considered as the typical species of the group, which also includes the European Redstarts (*Phœnicuræ*), the Aquatic Warblers (*Salicaria*), &c. ; but we having no species that properly ranks in this section, we immediately pass to

The true or typical Warbler, constituting the sub-family *Sylvianeæ*. These are birds of minute size, extremely active, and chiefly arboreal and insectivorous in their habits, and forming an extensive group, many species exist in nearly all parts of the world ; of course exhibiting a diversity of habits, and consequently of forms ; thirty or more species are found to exist in New England. Those introduced in this number are quite aberrant from the typical form, and from their peculiar habits may well be termed the *Flycatching Warblers*. In the form of the bill, several of the species greatly resemble the Flycatchers, and by respectable ornithologists the first here described is still placed in *Muscicapa*, with the other American Flycatchers. In their habits, and in the markings of their plumage, they are closely allied to the Warblers, with which they are likewise classed.

The AMERICAN REDSTART, (*Setophaga ruticilla*, Swain. ; *Muscicapa ruticilla*, Linn., Wilson, and many others,) is a minute, but truly beautiful species, generally diffused over the United States, and extends its migrations as far northward as the sixty-second parallel ; but it does not appear to be very numerous. It winters in tropical America, and enters New England from the south early in May, when the throngs of summer birds begin to arrive, that

“in busy tribes  
Four their forgotten multitudes, and catch  
New life, new rapture, from the smile of spring ;”

at which time they may be observed flitting continually among our thickets and woodlands, their brilliant tails expanded, and the males frequently uttering their short but sprightly and pleasing songs, as they pursue their insect prey. A few remain with us throughout the summer, placing their neatly formed nests, delicately lined with downy substances, in the forks of bushes or low trees, in which they lay four or five pure white eggs, sprinkled with dusky spots. In the wild, romantic, wooded glens of central Vermont, I have met with them much more frequently in summer than in this section ; but as they are everywhere shy and retired, as well as scarce, frequenting the deepest thickets, and shunning the haunts of man, they are as yet but little known.

The length of the Redstart is five inches ; extent six and a quarter. The adult males, in perfect plumage, have the head, neck, breast, and whole upper parts deep black, with glossy blue reflections ; sides of the breast under surface of

the wings, tail, except the two middle feathers and a terminal band of black, deep orange red ; a band of orange at the base of the primaries and secondaries of the wings ; belly, white. The female is pale greenish olive, where the male is black, and pale yellow where he is orange, except the aurora band on the wings, which she does not possess. The males are several years in acquiring their mature plumage, during the first and second years resembling the female, and gradually afterwards acquire the glowing colors of the perfect adult male.

The CANADA FLYCATCHING WARBLER, (*Setophaga Canadensis*, Swain.) sometimes described as the *Canada Flycatcher* and *Spotted Canada Warbler*, like the preceding, is not a common species, and is occasionally found to be quite rare. It passes through this region on its northward journey about the 20th of May, (the present year between the 20th and 26th of May,) and proceeds far to the northward to breed. South of New England it seems to be a rare species, and is seldom observed below New York ; Wilson remarks that he shot two in the interior of Pennsylvania, the only individuals he ever met with ; and Audubon states that he never saw them below Philadelphia. During the last week of May, the present year, I met with more than a dozen individuals in Springfield.

In their habits they much resemble the Redstarts, and like them are continually in the pursuit of small winged insects. I observed one that had taken his stand over a pond of water, in which dry bushes were standing, dart from his perch at the passing insects, returning each time to the same bush, and often to the same twig, like the Pewee Flycatchers, uttering at intervals a short but lively and very pleasing song. The history of this species is still quite imperfect.

The Canada Flycatcher measures four and a half inches in length and eight in extent. Male, above, bluish gray, with a tinge of greenish olive on the back ; crown, streaked with black ; lores and around the eye, yellow ; a patch of black below the eye connects with a band of black streaks that marks the breast ; lower parts, deep yellow. A specimen before me, that proved by dissection to be a female, has all the colors much paler, entirely wanting the greenish patch on the back, which Dr. DeKay considers as a peculiar and distinguishing characteristic of the female, and has the black markings on the head and breast quite obscure. Of four or five males that I have recently examined, some had all the colors less deep and pure than others, but all had the greenish tinge on the back, and on some it was quite conspicuous.

Two species of a genus formed by Prince C. L. Bonaparte, of a few species detached from *Sylvicola*, and dedicated to the memory of the “great pioneer in American Ornithology,” are here introduced, as they resemble the preceding in several important characteristics.

The HOODED WARBLER, (*Wilsonia mitrata*, Bonap.) is an exceedingly rare species in New England, but it is probably found here, as its habitat is known to extend from Mexico to 52° north ; but it seems to be rare to the northward of Maryland. In the Southern States it is abundant, and seems partial to low situations, where there is thick underwood ; and in the thick cane-brakes

along the Mississippi river, it is likewise said to be very common. It builds a compact nest in low bushes, laying therein about five grayish white eggs, marked with reddish spots near the greater end.

This species is five and a half inches in length, and eight in alar extent. Forehead, cheeks and chin, yellow; head, neck, and upper part of the breast, black; rest of the lower parts, yellow; back and tail, yellow olive. In the female, the black is of less extent, and not of so deep a tint.

The GREEN BLACK-CAPPED WARBLER, (*Wilsonia pusilla*, Bonap.,) was discovered by Wilson in the Southern States, and in the swamps of that section it sometimes spends the summer. It is an exceedingly active species, its habits being similar to those of the birds above described; its nest and eggs considerably resemble those of the Hooded Warbler. It passes through New England about the 15th of May on its way to the North, and proceeding to high boreal latitudes to incubate, has been observed to arrive at Labrador in June, and its nests have been found as high as the fifty-second parallel. On its return to tropical America to its winter quarters, it passes through our borders, and, as in its spring transit, makes but a short tarry with us.

The length of this beautiful species is four inches and a half; alar expanse, six and a half. A pair of these birds obtained the present season exhibit the following markings. Male, above green olive; crown, deep glossy black; forehead, space round the eyes, throat and lower parts, yellow, tinged with olive on the sides; wings and tail dusky tinged with olive. The female has the black patch on the head smaller, and quite indistinct, being skirted with olive, but otherwise does not essentially differ in color from the male.

The BLUE GRAY FLYCATCHING WARBLER, (*Culicivora caerulea*, Swain.,) or *Blue Gray Gnat-catcher* of some writers, winters in Mexico, and countries south of the United States; it is found in Louisiana at the middle of March, arrives in Pennsylvania about the middle of April, reaches New York and New England early in May, and has been observed as far north as the seventy-sixth parallel. It is not a numerous species, and in New England appears to be quite rare; it extends over the Western States, where it is not uncommonly met with. It is one of the least of our birds in size, but is exceeded by none in activity, being perpetually on the wing, seizing the minute winged insects that constitute its food, and is found to take large numbers of mosquitoes, and of various kinds of gnats. Wilson observes, "it darts about from one tree to another, with hanging wings and erect tail, making a feeble chirping *tsee, tsee*, no louder than a mouse. Though so small in itself, it is ambitious of hunting on the highest branches, and is seldom seen among the humbler thickets." It constructs its tiny nest of such perishable materials as the husks of buds, stems of old leaves, and down from the stalks of ferns, outwardly covered with gray lichen, and lined with a few horse hairs, the structure being often placed among the twigs of the tallest trees, sometimes fifty feet from the ground. Its eggs are pure white, with a few reddish brown dots at the larger end.

The length of this bird is four and a half inches; extent six and a half; color above, light

bluish gray, bluest on the head; below, bluish white; tail, longer than the body, black, the exterior feathers nearly white.

CORRECTIONS. — WOOD THRUSH — YELLOW-BELLIED PEWEE.—In the article preceding the present, No. 13,) for *Crow* Blackbirds read *Cow* Blackbirds; in the number next preceding, for *tree* thrushes read *true* Thrushes.

In the first article on the Thrushes (No. 11.) a Thrush was mentioned that took up its residence in the most business part of the city, during the summer of 1860, whose wild woodland music rose above the sound of rattling vehicles and the noise of business—a welcome and refreshing strain to many a weary ear, suggesting to the listener secluded groves and woody solitudes, the natural haunts of that solitary, yet delightful musician, our favorite WOOD THRUSH. Remote from his accustomed haunts, this singular bird took up his retreat in the trees that adorn the public square, within a stone's throw of the City Hall and other public buildings of the city, surrounded by pavements and walls of brick, with scores of citizens passing and repassing continually beneath the trees from which he sung, and passed the season apparently happy and contented, wholly self-secluded from intercourse with his own species, and wholly unmolested by our good citizens. The present year he has again returned, occupying again the same trees and situations he frequented last summer, and is heartily welcomed by our people, as without fear of harm from man he pours out daily his melodious lays, and gathers his food from and near the walks where citizens pass continually. The "hospitalities of the city," as a friend has observed, are fully guaranteed to him, and accordingly a tyrannical Crow Blackbird that built her nest in one of the wide-spreading elms of the square, in May, was shot, by permission of the mayor, because she persisted in driving the musical, harmless Thrush from his favorite retreat. Such a strange departure of any bird from the general habits of its species, seems particularly deserving of notice; and especially in this case, where a bird, naturally remarkably shy of man, and selecting the most retired woody retreats for its home, voluntarily secludes himself entirely from his kind, courts intimacy with man, and leaves the quiet, umbrageous woodlands for opposite situations in the noisy city.

Not having the opportunity of seeing this Thrush last season, and judging in part from the representations of others, it was hinted in the former notice of this bird, that it might be the Olive-backed Thrush (*Turdus olivacea*, of Giraud,) a species that seems to be but little known. It proves, however, to be the genuine Wood Thrush (*Turdus mustelinus*.) The Olive-backed Thrush I have observed in considerable numbers in May; it seems to be the least suspicious of our four woodland Thrushes, occasionally frequenting gardens and orchards, and is often found in plowed fields that lie adjacent to woodland, searching for the larva of insects. Its song resembles considerably that of the common Veery, (*Turdus Wilsonii*;) but it is less loud, and I think it inferior to the song of that admirable minstrel.

In describing the Flycatcher, some time since, one species found in New England, but very little



known, was overlooked; it is the **YELLOW-BELLIED PEWEE**, (*Tyrannula flaviventus*—*Muscicapa flaviventus*, of Baird, discovered by S. F. BAIRD, on Long Island. It is closely allied to both the Little Pewee (*T. Acadica*) and the Wood Pewee, (*T. virens*), being intermediate in size between the two, and by a casual observer might be mistaken for either. I met with several pairs in May of the present year, in this vicinity, always in the woodlands; its habits do not essentially differ from those of the Wood Pewee; and it doubtless breeds in this latitude. The color of the Yellow-bellied Pewee is a deep green olive above, the green being much stronger than in *T. Acadica*; beneath, pale lemon yellow, brightest on the belly, and elsewhere inclining to olive; ring surrounding the eye, yellow.

J. A. A.

Springfield, July 4, 1861.

#### "TRABB'S BOY."

Every one, we think, will recognize the faithfulness to life of the following incident from Dickens' new story "Great Expectations." Mr. Pip was an apprentice of Joe, the blacksmith. He afterwards came into some money, and quitting his village, went up to London to complete his education, and study a profession. After a number of years, he has occasion to pass through the old village, and his appearance in the state and dignity of a gentleman excites natural indignation among those who knew him as a blacksmith's boy. Relating the story, he says:

It was interesting to be in the quiet old town once more, and it was not disagreeable to be here and there suddenly recognized and stared after. One or two of the tradespeople even darted out of their shops and went a little way down the street before me, that they might turn as if they had forgotten something, and pass me face to face—on which occasion I don't know whether they or I made the pretence; they of not doing it, or I of not seeing it. Still my position was a distinguished one, and I was not at all dissatisfied with it, until Fate threw me in the way of that unlimited miscreant, Trabb's boy.

Casting my eyes along the street at a certain point of my progress, I beheld Trabb's boy approaching, lashing himself with an empty blue bag. Deeming that a serene and unconscious contemplation of him would best beseem me, and would be most likely to quell his evil mind, I advanced with that expression of countenance, and was rather congratulating myself on my success, when suddenly the knees of Trabb's boy smote together, his hair uprose, his cap fell off, he trembled violently in every limb, staggered out into the road, and crying out to the police, "Hold me! I'm so frightened," feigned to be in a paroxysm of terror and contrition, occasioned by the dignity of my appearance. As I passed him his teeth loudly chattered in his head, and with every mark of extreme humiliation, he prostrated himself in the dust.

This was a hard thing to bear, but this was nothing. I had not advanced another two hundred yards, when, to my inexpressible terror, amazement and indignation, I again beheld Trabb's boy approaching. He was coming round a narrow corner. His blue bag was slung over his shoulder, honest industry beamed in his eyes,

a determination to proceed to Trabb's with cheerful briskness was indicated in his gait. With a shock he became aware of me, and was severely visited as before; but this time his motion was rotary, and he staggered round and round me with knees afflicted, and with uplifted hands as if beseeching for mercy. His sufferings were hailed with the greatest joy by a knot of spectators, and I felt utterly confounded.

I had got as much further down the street as the post-office, when I again beheld Trabb's boy shooting round by a back way. This time he was entirely changed. He wore the blue bag in the manner of my great coat, and was strutting along the pavement towards me on the opposite side of the street, attended by a company of delighted young friends to whom he from time to time exclaimed, with a wave of his hand, "Don't know yah!" Words cannot state the amount of aggravation and injury wreaked upon me by Trabb's boy, when, passing abreast of me, he pulled up his shirt collar, twined his side hair, stuck his arm akimbo, and smirked extravagantly by, wriggling his elbows and body, and drawing to his attendants, "Don't know yah, don't know yah, 'pon my soul, don't know yah!" The disgrace attendant on his immediately afterward taking to crowing and pursuing me across the bridge with crows as from an exceedingly dejected fowl who had known me when I was a blacksmith, culminated the disgrace with which I left the town, and was, so to speak, ejected by it into the open country.

But unless I had taken the life of Trabb's boy on that occasion, I really do not even now see what I could have done save endure. To have struggled with him in the street, or to have exacted any lower recompense from him than his heart's best blood, would have been futile and degrading. Moreover, he was a boy whom no man could hurt; an invulnerable and dodging serpent who, when chased into a corner, flew out again between his captor's legs, scornfully yelping. I wrote, however, to Mr. Trabb by next day's post, to say that Mr. Pip must decline to deal further with one who could so far forget what he owed to the best interests of society, as to employ a boy who excited loathing in every respectable mind.

**BLACK CURRANTS.**—A correspondent of the *Chicago Farmer's Advocate* gives the following as the mode of growing black currants in some parts of England. The ground is planted at the ratio of 3000 plants to the acre. After the second year each alternate plant is cut down nearly to the ground; the following year it makes a vigorous growth, and the year after bears a full crop; when its fellow is cut down. The bushes are allowed to bear two years; consequently all bear one year, and one-half bear the next. For instance, those cut last fall bear in 1861 and 1862, and those cut this fall bear in 1862 and 1863.

**TALL TIMOTHY.**—The Cincinnati *Valley Farmer* has received from a friend heads of Timothy fifteen inches long.

## THE BEECH TREE.

(FAGUS SYLVATICA.)

Few of the indigenous trees of this climate, of the deciduous class, are more valuable either for ornament or use, than the beech. In most of the New England States, it flourishes vigorously in its natural condition, often constituting extensive forests, where it is easily discriminated by its waved and rather oval leaves, and triangular fruit, consisting of two and three cells, enclosed by a husk covered with spines or simple prickles. No American tree endures better the violence of transplanting. The facility also with which it may be trained, so as to constitute long lines of lofty hedge, admirably designed to afford shelter during winter from cold and sweeping winds, render it a most desirable acquisition to the husbandman, in exalted regions, as well also as to the amateur farmer and the man of taste.

The fruit of the beech is another persuasive argument in its favor. This, which is called "mast," by some, usually falls with the second or third heavy frost. It is very palatable and nutritious; although if taken in excess, it will produce nausea and vertigo or giddiness. In a dried and ground state, it is highly alimentary, and can be made into excellent bread. The inhabitants of one of the Ionian Isles, Scio, we think, are said to have been enabled to withstand a memorable siege, simply by the sustenance afforded them by the mast of the *fagus sylvatica*—a tree indigenous in Scio, as probably in most of the Ionian groups. The fruit, roasted and prepared as coffee, is said to possess a highly delicious and fragrant flavor, superior in point of richness and mildness to the best Mocha. The nut yields also a sweet and bland oil, which may be expressed by the simplest machinery, requiring only the application of a moderate pressure for its expression. When extracted, it may be used as a substitute for butter, olive oil, &c.; and in this way we have the attestation of the press and of travellers, that it is extensively used in Silesia, as well as in several other lands. In some countries the foliage, as well as the nuts, is economized; the leaves are gathered from the trees in the autumn, before the disorganizing effects of frost have operated on their vitality, and applied as materials for beds and mattresses—being preferable for this purpose, to hay, straw or chaff—and as food for cattle.

But these beautiful trees are, like the pine, the maple, and the other native trees, rapidly disappearing from among us, in the same way that forests have disappeared in other countries. "France," said M. Thuan, "will disappear as many flourishing countries have, if she does not follow the example of Cyrus, who planted forests in Asia Minor. It is only the abundance of for-

ests and water that enables China to support her 300,000,000 of inhabitants, because in this empire there are more trees planted than destroyed. Spain, so densely populated, and so highly cultivated at the time of the Romans, Moors and Charles the Fifth, owes her desolate aspect at present, to this waste of wood." So it will be with any country, when no trees are planted to supply the place of those destroyed.

*For the New England Farmer.*

## WHY DON'T THE SEED VEGETATE?

Perhaps you dealt with a dishonest or careless seedsman, who sold you seed which had lost its vitality, and hence could not vegetate; or perhaps, which is more probable, you did not develop the vitality which was in the seed. It may be you planted it just deep enough for ordinary weather, but too deep, as it proved, for the cold, wet weather that succeeded your planting; and hence the seed rotted in the earth; or, again, too shallow for the hot, dry spell that followed. I planted nearly five thousand hills of the Mason cabbage about the 20th of June, and the seed in but about fifty hills have vegetated. "He was a rascal that sold me that seed for a fresh article," I might have said, but the fact was, I raised the seed myself, and knew it to be both fresh and of first rate quality; of course, then, I magnanimously spared the lash. The truth is, the surface soil has become too dry since the seed was planted to supply it with sufficient moisture. When the rain comes, if meanwhile the dry earth is not blown away sufficiently to lay the seed bare, I presume, when too late in the day to be of any value, the young plants may deign to show themselves. I must clap some pickling cucumbers or fall turnips into the piece.

Again, there is my thrifty neighbor Goodwin. Early in the spring he planted cabbage seed of his own raising, of the growth of the year previous, as fresh and plump seed as you would wish to see. Well, his seed, for some reason, metaphysical, hygienic, or otherwise, refused to vegetate; many of us believe that with the cold, wet season of early spring, it rotted in the ground. I warrant you, he doesn't lash the back of that seed-raiser very hard, because of the failure. The truth is, while every seed-dealer is bound to deal honestly and honorably with the community in the freshness and soundness and genuineness of the seed he sends into the market, yet, as in the course of Providence, up to the present date, he is not permitted to sell with the seed, control in full of all the laws which govern germination, an occasional failure, and consequent disappointment, always to be regretted, may occasionally be expected.

J. J. H. GREGORY.

*Marblehead, Mass., July 1, 1861.*

AN ENGLISH TASTE.—Mr. Tucker, in one of his letters to the *Country Gentleman*, thus speaks of the English ambition:

"People in these manufacturing villages are exceedingly fond of getting a piece of land of their own. It helps them perhaps in the keep of a

cow or the production of vegetables, while—most important of all—the possession of a forty-shilling freehold gives them a vote. To attain this end they will hoard their savings until a sum of five, ten, fifteen or twenty-five hundred dollars is attained at immense labor and at the almost entire sacrifice of all interest upon it while it is in the process of accumulation, and receiving when finally the purchase is completed scarcely any—satisfied at the outside with two and a half per cent."

#### ON THE CROSS-ROAD BY THE MILL.

BY B. H. KINNEY.

On the cross-road, by the Mill,  
Where the turnpike crosses eastward,  
Down the gently sloping hill,  
To the river running westward,  
By the cross-road and the Mill,  
Stood a farmer's humble cottage,—  
And the cot is standing still,  
Cherished with a sacred dotage.

There a sturdy yeoman dwelling,  
Tilled the stern New England soil:  
Gaining by his generous tilling,  
Scanty harvests for the toil:  
While his gentle housewife, moving  
Like the river deep and still,  
Trained their little brood for loving,  
In the cottage near the Mill.

Thus along *life's* cross-road, leading  
To the portals of the sky,  
Nature's sacred volume reading,  
Passed this ancient couple by;  
At the time of ripened harvest,  
That the heavenly garner fill,  
With the ones who travel farthest,  
On *life's* cross-road by the Mill.

Worcester, June, 1861.

Palladium.

AN OLD FIELD.—A correspondent of the *Northern New-Yorker and Saratoga Farmer*, makes the following statement of corn growing on a piece of land in the town of Johnsburgh, N. Y., near Lake George. We copy it for the especial benefit of lazy, shiftless farmers; and would advise all such to emigrate to the aforesaid Johnsburgh, as soon as may be.

"Of corn Mr. Wm. Scriptor has raised, father and son, from the same piece of land, a crop since 1810, or for fifty years successively, and without the aid of manure, ashes or plaster! Can this be beat? He says he has never changed his seed, and has a fair crop this year. His land is a gravelly loam, filled with cobble stone."

THE BARK LOUSE.—In reply to a correspondent who inquires for a remedy, the editor of the *Rural New-Yorker* says the bark louse is a difficult insect to get rid of. After mentioning applications of soft soap, tar and linseed oil (?) and a strong lye of tobacco, he adds that a gentleman in the Western part of the State wrote to him last season that he had entirely rid his orchard of this pest by simply throwing unleached ashes over the branches and trunk when wet. Care must be used that the ashes do not touch the leaves. The best time for this operation would be early in the spring, before the buds push.

For the *New England Farmer*.

#### THE VALUE OF HEALTH, MORE THAN WEALTH.

MESSRS. EDITORS:—Our happiness in this life depends more upon good health, and a conscience "void of offence," than every other circumstance. What enjoyment can a diseased hypochondriac have, unless he enjoys annoying his friends with a detailed catalogue of his miserable feelings. The causes for dyspepsia are numerous, some of which will be mentioned further along. A dyspeptic suffers physically and mentally; he is incapable of enjoying happiness in this life, or, seemingly, fitting himself for future happiness; if his morals and religious creed have been of the most approved kind, his gloomy mind bodes his future destiny as one least hopeful and most to be dreaded. Few who enjoy good health, realize the value of it. Money is no equivalent, or substitute for health, as many rich sufferers can testify. There are many causes for prolonged chronic disease; overaction and inaction produce nearly the same results, while well-adjusted labor is conducive to health. Excessive labor debilitates the system, and is followed by a train of morbid derangements which unfit a man for the enjoyments of social life. Headlong overdoing is the sin of the age; it not only produces a deranged state of the stomach, but a deranged state of finance. In what was pronounced "good times," thousands of mechanics worked themselves into dyspepsia for the purpose of earning extra pay; now the result of that overdoing is plain to be seen in the prostration of business, and bankruptcy of merchants. If men will do twenty years' business in ten years, they may expect an abridgment of labor and life accordingly.

Every man is limited to perform a certain amount of labor, and then is done. Some farmers, like other folks, have a great desire to accumulate property. Industry merits the highest commendation, but overworking is sure to produce sickness, melancholy and regret. I have known farmers doing a snug business, clear of debt, a little money on hand, and living happily in their families, suddenly seized with the land fever, on a farm being for sale in the neighborhood, make the highest bid, and at the same time bid adieu to all comfort, involve themselves in debt, multiply the labors and cares of the household department, disgust their sons by additional labor to such an extent, that they leave for the city in hopes to find relief, delve for a few years, when they yield themselves an easy prey to old age, and death, and their hard-earned property is distributed to greedy city and other relatives, as a lucky morsel. Inaction does not always imply laziness.

Those who live sedentary lives are often the most industrious portion of our population, but still, there is a degree of inaction in a part of the muscular and organic system, which is detrimental to health. Children that are confined at school the year around, often suffer from the effects of confinement; lassitude takes the place of action, and a little exercise produces fatigue till a disinclination to action predominates, and a poor appetite and debility follows. Children designed for trades or any kind of labor, females not excepted, would form more vigorous constitutions,

if instructed in some useful trade or employment six months in the year. According to retrospective observation, I am convinced that six months schooling in the year is better than twelve, for the majority of children. They become disgusted at being driven to school daily, and after a while lose their interest for study, which becomes a drudgery, and grow idle, and would rather do any thing than go to school. But circumstances alter cases; out of two evils we ought to select the least. In cities and villages, where children have nothing to do but perplex their parents, or expose their lives in rambling the streets, confinement to the school-house may prove the lesser evil. Children have an intense desire for action, which will result in good or evil. "As the twig is bent, the tree is inclined."

I have often thought of the great disproportion between the natural life of man, and the years spent to acquire a fashionable education. Our young men spend something like nine or ten years (after attending district schools,) to qualify themselves for the several professions, at great expense of money and deterioration of physical energy. These nine years consume the most important period during the life of man. A great proportion of professional men find themselves in the neighborhood of 25 or 30 years of age, before they have gone through all the formalities demanded by custom to qualify them for the desk, bar or saddle-bags. In this protracted course of study, or sedentary inaction, the physical powers must suffer, and the mental of course must sympathize with them, and many a man has commenced his profession with a shattered constitution. Intellects that cannot be scoured up in less time than nine years to fit a man for a profession, would be better adapted to some other calling.

In the latter part of the last century, the clergy in this vicinity were strong, muscular men; they could build stone wall and preach a sermon three-fourths of an hour long, or, till every member of the assembly were ready and happy to chime in the Amen. More of them had served their country in the war of the revolution than went to Europe to regain lost health. Some of them would work on the "Parsonage" three days in a week, and give us two stentorian sermons on the Sabbath not easily forgotten. These men were not of the locomotive kind, but lived and sympathized with their parishioners, in prosperity and adversity.

SILAS BROWN.

North Wilmington, July, 1861.

BEGIN SMALL.—Such is the advice of the *California Culturist* to those who are going into the sheep-raising business in that State. After mentioning an instance of individual success, in which the money invested in a small way was doubled in six months, including the shearing season, of course, other instances are spoken of as follows:

We have met with capitalists who have invested largely in sheep, some of them buying their five, ten or twenty thousand head at the commencement, thinking they could make it pay, in accordance with the extraordinary increase known to attend this valuable animal in California.

Most of these persons, thus purchasing largely, have failed to meet their anticipations, and in no long time, have been found selling off their large flocks in small parcels, as they could best find purchasers. This exactly demonstrates what has long been an admitted principle of business, that if you would achieve eminent success, it must have its commencement from small beginnings; because, in the small business of an enterprise, one becomes thoroughly acquainted with all those minute details which qualify for the successful management of those of increasing dimensions.

#### THE TIME TO CUT TIMBER.

MESSES. EDITORS:—In a recent number of the *Scientific American*, under the head of "Useful Information about Timber," I find a statement in direct opposition to the theory received among wood-cutters, in regard to the best time for felling timber. It is there stated that this is when the wood contains the *least sap*, in whatever part of the year this may take place. The result of my observation is, that the month of August is the best period to cut timber for mechanical purposes, just when the leaf is fall, or has attained its growth, at which time the tree has certainly the greatest amount of sap in it. I have found that the timber cut at this period is perfectly solid, sap-wood, and all, and that it is also free from worms. Timber cut upon the same ground during other months of the year is quite porous, and has the sap wood entirely eaten off, when undergoing the same process in drying. I was led to believe that the abundance of sap in August closed the pores of the wood and solidified the timber. If my philosophy is wrong, there are quite a number of your patrons in this place interested in the subject, and who wish to hear more about it.

THOMAS HARPER.

Alleghany City, Pa., Jan., 1859.

There seems to be a misapprehension of the idea expressed on page 154 of the present volume of the *Scientific American*, in regard to the best period for cutting timber. It is there stated that in New England, August is held to be the best month of the year, as at that period the *sap is exhausted* in forming the leaves, and the new wood and the trunk are then much drier. This language is in accordance with the opinions of our correspondent. In reference to the term *least sap*, perhaps the matter would be rendered more clear to have said the *least free sap*. In the month of August, according to our correspondent, the sap becomes solid, and fills up all the pores of the wood, consequently it is not *free*—not exactly sap at that period. In other States, further south, July is the month most favorable for cutting timber.—*Scientific American*.

TRUE COLORS.—The Ohio *Cultivator*, in noticing the election of a president of an "institution at College Hill" called Farmer's College, advises the managers to complete the work of reform, by abolishing the cheat of a false name, and placing it before the public in its appropriate sphere, as a first rate Classical and Literary Institute.

*For the New England Farmer.*

### HAY-MAKING---PLANTING ON GREEN SWARD.

MR. EDITOR:—I was much pleased in the perusal of your editorial of June 22d, on "Grass and Hay Making," particularly in the reference to curing hay in cock, rather than by wasting labor, exposing the article to showers, and injuring its quality and quantity under a burning sun. A fine field of clover near by, was cut on Monday, cocked on Tuesday, stood until Wednesday week, about 9 days, then opened in flakes, or six forks to a cock, carted and mowed, and a bushel basket would hold the heads and leaves that fell off. Its appearance was as fine as when cut, and the labor expended trifling in amount.

The "New Mode of Planting on Green Sward" I remember to have seen recommended in a farmer's manual, about 40 years ago. I tried it then and since, and think well of it. In 1848 or '49, while superintending the manufacture of the Prouty & Mears plow, at South Boston, a gentleman from Vermont visited my family; he spoke of that practice being successfully adopted in his neighborhood, viz.: spreading manure, lopping up back-furrows in sward, planting the top of ridges—but he said there was difficulty in laying the last furrow, with a common plow, and wished he could have one to lay up the two at once. I told him he could have it, made the pattern, built the plow, proved it, and found it all right, forwarded it to him and received the cash, the plow being satisfactory. Hundreds have been built since for home and Cuba market. They may now be had of Messrs. Nourse, Mason & Co., Boston, under the name of "Prouty & Mears Midland Plow"—that is the true Centre Draft Plow, *drawing* from the *centre* of opposing forces—doing its work equally on each side—as truly as the *centre of gravity* of a plum-bob is supported by the line by which it is suspended. The interest of the farming community would be advanced by a better acquaintance with *that plow*, and its general introduction.

JOHN MEARS,  
The Old Plow Maker.

*South Abington, July 5, 1861.*

REMARKS.—We are glad to hear from this veteran plow-maker, and especially so to find him approving our suggestions. Mr. Mears has been a public benefactor—long may he live in the enjoyment of his well-earned fame.

### DITCHING WITH A PLOW.

It is often said that, "where there's a will, there's a way;" and if American farmers have a will to drain off the superfluous water from their farms, there can be little doubt that they will find, or make a way, to do so. The following experiment in the ditching line by a New Hampshire farmer is reported in the *Journal of Agriculture*:

In the first place, I plow two furrows, and throw them out; this makes the ditch wide enough at top. I then plow two more and throw them out. The ditch is then twelve or fifteen inches deep, and one ox can no longer walk in it

with the other on the surface. I then take a stout-piece of timber, say five or six inches square, (a round stick would do as well) and twelve or fifteen feet long. I then lay it across the ditch and hitch a yoke of oxen on each end, so that the timber serves as a long whiffletree, with the plow chained in the middle; and as the ditch grows deeper, the chain is let out longer. In this way, there would be no trouble in plowing six feet deep. The only difficulty is, in keeping the oxen nearly abreast; as it is new work for them. But by taking light furrows at first, they soon learn. I use for this purpose one of the iron beam, "Washington" plows, as they are called, made, I believe, in Concord. It requires a new point, or one as good as new. After running the plow through two or three times, throw out the loose earth and plow again.

### EXTRACTS AND REPLIES.

#### CATTLE CHEWING BONES.

Can you tell me, through your paper, the cause of cattle gnawing the fences, barns, and every old board that they can find, bones, old leather, &c.? My cattle have done so for the last six months, and I know not what to do for them; they lose their flesh, and their eyes look bad. Any information in regard to it would be gratefully received.

GRANTHAM.

*Grantham, N. H., July, 1861.*

REMARKS.—When cattle are found chewing such substances as you mention, they have an appetite occasioned by the want of some substance which the system needs for its full and healthy development. When cows have long fed upon the same pastures, the food they get there lacks some important elements that they must have, or become sick, and when they are found chewing bones, it is evident that something is lacking. In such cases they should have, first, all the salt they will eat; then collect all the bones you can find, put them in the hot stove oven until they are thoroughly dry and become brittle, then pound them as fine as meal if you can, and lay before the animals. If they refuse to eat it in that form, mix a little with meal and feed in that form. The animals need phosphate of lime and other bone-forming materials, of which, by constant cropping, the fields and pastures have become greatly exhausted. Bone-meal may be purchased at the agricultural warehouses in any quantity.

#### BUCK CHAMPION OF VERMONT.

MR. H. T. Bucklin, of Sudbury, Vt., recently attended a shearing in the State of Ohio, with his famous Buck Champion, of Vt., which sheared 30 pounds of wool, (being less than one year's growth.) His carcass weighed, after being shorn, 105 pounds, giving him a pound of wool to 3½ pounds of carcass. His blood is pure Spanish merino. The sheep and fleece are on exhibition at his residence in Sudbury. A SUBSCRIBER.

*Brandon, Vt., July 8, 1861.*

## SCIONS—CROPS IN ILLINOIS.

I notice in your April or May number of the *Farmer* that a Mr. S. A. Shurtleff offers to furnish scions of certain sweet apples, but does not give his address sufficient to enable us to send for them. You will oblige me very much by giving it in full.

The prospect for farmers is very good. Wheat is nearly ripe, the yield and quality of grain will be very good. Of corn, there is more than usual planted, and owing to a dry June it has been very easily kept clean. A good crop is almost certain. Other crops look well, except meadows which were all injured, and a good deal entirely destroyed by the army worm. Of hogs, there is about the usual number, but will make a better average than common. Fruit is promising—we have had plenty of cherries for some weeks, and will have for weeks to come. Apple trees are about full enough and peaches are overloaded. WM. CUTTER.

*Beverly, Adams Co., Illinois.*

REMARKS.—Excellent, this is a cheering letter. Dr. S. A. Shurtleff, Brookline, Mass., is the address you inquired for.

## THE CROPS.

After one week's scorching sun, ranging every afternoon in the shade, from 83° to 95°, we have been favored with refreshing showers of rain, last evening and this morning. Our hay crop is decidedly good, and has been cured in the very best manner. Indian corn looks vigorous and luxuriant, and is now growing splendidly. How it is with wheat and other English grains, I have not noticed, but have no reason to think there will be any deficiency in those crops. Fruits of all kinds, excepting strawberries, are likely to fail. I have never known strawberries better than this season. On the whole, there is every reason to bless God that our lines have fallen to us under such favorable auspices. J. W. P.

*July 10, 1861.*

N. B.—I went out this afternoon to look at the fields of onions—found them few and far between. On inquiry for the destroyer, found that he had not failed to appear, and that *the specific remedies* that have been recommended find no favor with sensible men.

## HOW TO RAISE CREAM IN HOT WEATHER.

Allow me to suggest to the readers of the *Farmer* a simple method of management to raise good cream in hot weather; it will cost nothing, and is simply the following: Milk in tin pails, and after milking set the pails into a tub of cold water ten or fifteen minutes—stir it in the mean time, occasionally, before straining off. I have tried it for years, with good success. S. BYINGTON.

*Stockbridge, July 8, 1861.*

CABBAGE FOR FODDER.—There is no vegetable that can be planted after the first of July that will give so great a yield of fodder as cabbages; and no one who is likely to be short of pasturage, or winter feed, should neglect this highly important adjunct to his other crops. The notion that cabbages should only be grown by the dozen, for cooking in the kitchen, is an old and we may add

a foolish one. Grow them by the thousand, and after pasture fails, feed them from where they are growing to every domestic animal on the farm. When the ground freezes, pull up your cabbage crop and store it in the cellar, or the barn, or under straw, until you can feed it out.

*For the New England Farmer.*

## INFLUENCE OF THE MOON ON TIMBER.

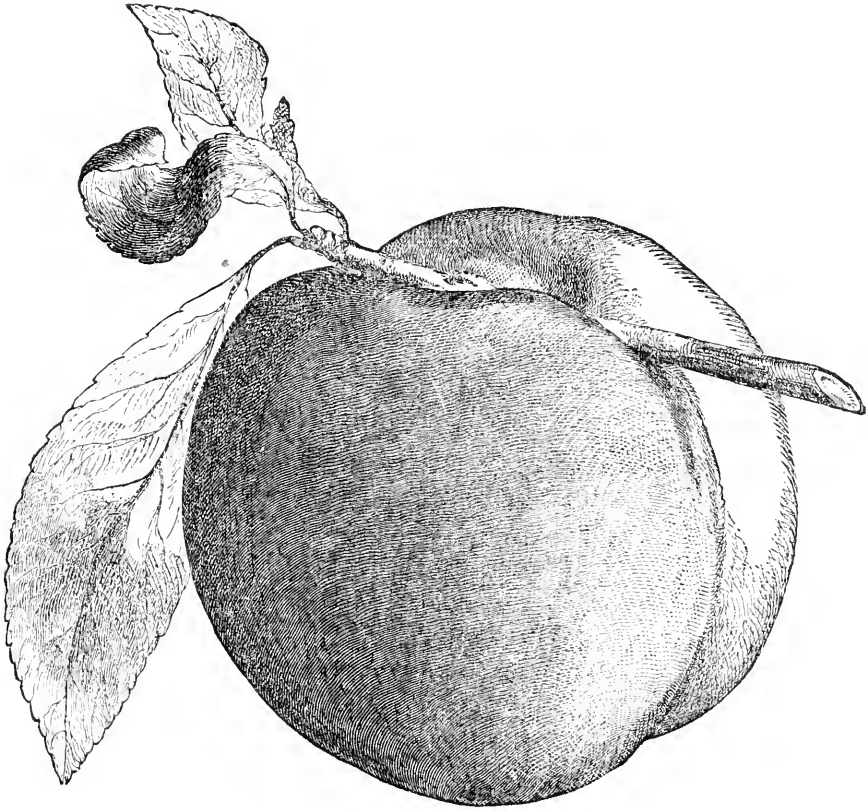
On looking over the pages of the *Monthly Farmer* for July, just at hand, I perceived remarks on the "influence of the moon on cutting of timber," &c. The moon has so long been loaded with absurdities about "the cutting of timber," "the growing of crops," the bringing into the world calves, pigs and children, and hundreds of other things, that it is time she was vindicated from such slanderous abuses. This brings to mind a conversation I once heard, where a large number of persons were present, and the venerable TIMOTHY PICKERING, of Salem, was of the number. One of these gentleman, a captain of Rowley, had been explaining the importance of having regard to the size and position of the moon, when timber was cut, saying that he had followed the business of cutting such timber, and taking it to market for many years, and knew whereof he affirmed, and this he did with marked emphasis, it being after eleven o'clock in the day, those being times when this hour of eleven was duly regarded by many men, especially when they were at the tavern. Says the old gentleman, Pickering, rising with all the dignity at his command, "My good friend, I beg of you never again to introduce the moon, as having an influence on the quality of timber, where I am present. I have lived more than eighty years, and seen much of the world, and I can assure you, she has no more to do with it, than the 'man in the moon.'" The brave captain was silent, and said no more.

*July 9, 1861.*

J. W. PROCTOR.

LARGE FRUIT FARM.—The *Gardener's Monthly*, of Philadelphia, gives an account of the Rev. J. Knox's fruit farm in Pittsburg. Fifty acres are planted with strawberries, ten with raspberries, ten with blackberries, seventeen with peaches, ten with apples, and three with grapes, &c. The ground for strawberries is abundantly enriched, and to give some idea of the amount of labor expended on this fruit, it is stated that in spring-time over one hundred persons are employed on the grounds at one time.

N. H. JOURNAL OF AGRICULTURE.—W. H. GILMORE, Esq., has sold his interest in the *New Hampshire Journal of Agriculture*, to F. B. EATON, Esq., who will control the journal hereafter. Mr. Eaton says,—“We come to this work with an earnest purpose and conscious desire to make it worthy of support.” We wish these qualities success, and hope the *Journal* will merit a most liberal patronage. We welcome brother Eaton into the corps and the good cause.



THE MAMMOTH PEACH.

We have never yet found a person who did not like the peach. It is a universal favorite, and, fortunately, is, at the same time, a healthful and nutritious fruit. It is not a native of our country, nor was it introduced here until long after some of the towns in the vicinity of Boston were settled. It is a native of both Persia and China, and has been raised in New England now about two hundred years.

For many years, our climate, both in New England and the Middle States, seemed admirably adapted to the peach, and larger quantities of it were raised than were probably ever produced any where else. Delicious as they were, they became so common that all our people either had access to them on their own grounds, or they were so cheap as to be within their limited means to purchase. Acres, by hundreds, were planted with them in the Middle States, so that not only their own large cities were bountifully supplied, but those of the North also, in the most liberal manner. Indeed, they were not only eaten freely during the season of their ripening, but were preserved in large quantities, and became one of the

most common and delicious condiments of the table. The quince seemed to be supplanted by them, and although used in some degree, lost that place of pre-eminence, as a preserve, which it had long sustained.

For several years past, the peach tree has been undergoing a gradual process of decay, and no art of the chemist, or skill of the gardener, has been able to arrest it. A disease, known as "*The Yellows*," has cut off thousands of acres in the Middle States. The same disease has also been prevalent in New England, and although its power to destroy, as in the States farther South, has not been so rapid, it has at last proved equally fatal. Five years ago, there were many flourishing peach-orchards in New England; now we are not aware that there is one!

There were many varieties of the peach, possessing various merits. They ripened, also, at different times in the course of several weeks between the last of July and the last of October. Some of them grew into a magnificent size, as is represented by the illustration which we give above. This peach was raised in the grounds of

TRUMBULL BULL, Esq., in Harvard, Mass., who has frequently sold several hundred dollars worth of this and other varieties in a season. His letter below tells its own story.

MR. BROWN:—*Dear Sir*,—The peach given you yesterday in the cars, is known at my place as the *Mammoth Peach*, measuring about  $9\frac{3}{4}$  inches in circumference, and its weight, when picked, 10 ounces, with the little stem and leaves.

The skin is usually of a yellowish cast, with a bright red cheek.

It is quite yellow-meated, very juicy, and in flavor not unlike the Crawford. Freestone; ripens from 15th to 30th of September.

Hoping we shall have an abundance of peaches another season, I remain,

Yours in haste. TRUMBULL BULL.

Harvard, Sept. 26, 1860.

#### DANGERS OF CHECKING PERSPIRATION.

A medical journal publishes a severe caution against allowing perspiration to be suddenly checked. All who are condemned to "eat their bread in the sweat of their brows" should give heed to this advice. As one illustration of the evils resulting from the practice which it condemns, the following case, divested of technicalities, may be cited: A Boston merchant having worked pretty hard on board one of his ships on a windy day, found himself exhausted and perspiring freely. He sat down to rest. The cool wind from the sea was delightful, and engaging in conversation, time passed faster than he was aware. In attempting to rise, he could not do so without assistance. He was taken home and put to bed, where he remained two years, and for a long time could only hobble about on a crutch. Such exposures frequently result in inflammation of the lungs, pneumonia, ending in death in less than a week, or tedious rheumatic affections. Multitudes of lives would be saved every year if parents would explain to their children the danger which attends cooling off too quickly after exercise, and the importance of not standing still after work or play, or remaining exposed to a wind, or sitting at an open window or door, or pulling off any garment, even the hat or bonnet, while in a heat. It should be remembered that a cold never comes without a cause, and that in four times out of five, it is the result of leaving off exercise too suddenly, or of remaining still in the wind, or entering, while heated, a cooler atmosphere than that in which the exercise has been taken.

WINDMILLS.—Will you, or some of the correspondents of the *Cultivator*, inform me through its valuable pages, what the power of a windmill would be, whose diameter is eight feet, and having eight vanes, from twelve to sixteen inches wide. Would it be too heavy if the wheel weighed one hundred pounds? Where is Elgar's self-regulating windmill made? R.

Our correspondent may easily make his own calculations, by first ascertaining the surface of all the vanes in square feet, and then allowing one-tenth of a pound on the square foot for a

light breeze, two to three-tenths for a gentle wind, one pound for a brisk wind, two to three pounds when very brisk, and four to six pounds for a high wind. The windmill mentioned would be much too large and heavy for anything but a self-regulator—unless constantly watched, it would be soon broken to pieces. We do not know where Elgar's is made.—*Country Gentleman*.

#### OBSERVATIONS ON STORMS.

1. The Atlantic ocean is the source of nearly all the rains which visit this part of the country. The moisture collected from the great lakes is small in quantity, travels but a short distance, and usually falls to the Northward of this parallel. The Gulf of Mexico sheds its vapors on the great Western valley. From the Northern ocean and the rivers flowing into it, hardly any moisture is evaporated.

2. The heated air ascending from the surface of the Atlantic, especially from the Gulf Stream, is wafted over the land, by winds which usually blow at a right angle to the general coast line. During nearly the whole of last week such a breeze blew from the Southeast. It was hot, damp, and felt oppressive on account of the quantity of moisture it contained.

3. No rain storms are experienced, or even heavy showers, after the wind has been blowing steadily from the Northwest, this being a dry current, and absorbing instead of giving out moisture.

4. After hot days, during the summer season, the sea breeze usually sets in toward evening. On reaching the mountains this current comes in contact with a cooler one, from the opposite direction, when there is apt to be a thunder shower, followed by the ordinary Northwester. The storm occurs along the line of collision between those opposing currents, and of course travels in the direction of the ocean.

5. When a Southeaster has prevailed for a time at any season, it is reasonable to expect a corresponding heavy rain, as the clouds have a great quantity of moisture to deposit. At the same time the coolness which succeeds will usually be in about the same ratio, the wet surface of the ground absorbing much of the caloric in the lower atmosphere.

6. The Northeast storm is probably in every case caused by one of those circular storms, termed "Cyclones," whose centre is some distance to the eastward. In such a case the storm travels from Southwest to Northeast, or in the contrary direction to that in which we feel the breeze blowing. If accurate observations were made as to the changes in the wind, the centre of the tempest might be calculated with tolerable accuracy. In proportion to the length of time, and the strength and coldness of current, the storm will probably be more or less severe. A correspondent, who has long made this subject a study, remarks that the Northeasters are seldom experienced west of the Alleghanies.

7. It is remarkable that on this side of those mountains, storms scarcely ever blow from any of the cardinal points of the compass. Any exceptions are believed to be only cases when the wind is turning, or rather when persons are en-



tering into or passing out of the track of the tempest.

These observations might be multiplied to a great extent; but probably comprise the most important facts in relation to the storms which are experienced in this part of the country. To those who are not familiar with the subject, they will serve to explain, in part, the more immediate causes of those phenomena.—*New York Commercial Advertiser.*

#### WOOL AND MUTTON SHEEP.

Evening discussions are becoming an important part of the proceedings at the New York State Fairs. We copy from the *Rural New-Yorker* the following abstract of the remarks on Sheep and Wool Growing.

WADE, of Port Hope, C. W.—Canadian farmers prefer the long-wooled mutton sheep, as a general thing, because they can make more money by keeping them than the fine-wooled. They are more healthy, and though the wool sells for less per pound, the larger fleece brings a higher price to the farmer.

PETERS.—How do you feed?

WADE.—Feed well, winter and summer. Grow great quantities of roots, and find them almost indispensable in sheep keeping, but give anything they relish, and all they will eat. It is nonsense to keep any animal poor. In winter principally feed turnips, hay and a few oats. The fleeces average eight pounds each, when well washed. Prefer the Leicester crossed with the Cotswold. The Cotswold has a heavier carcass and better constitution. The sheep, however, that we now have are modifications of the old breeds whose name they bear. The Leicesters were much modified and improved by BAKEWELL, who bred in-and-in for the purpose of improving the form, which he accomplished, but in doing so sacrificed the constitution to a certain extent. It is therefore well for the grower of long-wooled sheep to gain constitution in the way I have mentioned.

JOHN S. PETTIBONE, Vermont.—I have always recommended the farmer who has only land enough for fifty or one hundred sheep, to keep those best for mutton. But, under other circumstances, fine-wooled are most profitable. I commenced raising Merinos forty years ago, and have continued to this time without admixture or cross. The greatest difficulty with sheep raisers is that they let their flocks run down in October when the pastures get poor. Unless a person is a good judge he cannot tell when his sheep are losing flesh, and thus many are deceived and their flocks get in low condition before they are aware of it. No one can judge of the value of a sheep when the wool is off. Once I selected two ewes which I considered as near alike as possible, but at shearing time one gave five pounds of wool and the other three. Always examine them in January, and when I find a ewe with long, soft, thick wool, I mark it for myself, and no one can buy it.

A FARMER.—Do Vermont sheep-raisers grease their sheep?

PETTIBONE.—I have no doubt there is a good deal of fraud practiced, but I never greased a sheep in my life. Merino wool will be somewhat greasy, but there is a great difference in this re-

spect. I know a gentleman who had a ewe which sheared thirteen pounds of very greasy wool. One of mine sheared five pounds, and yet, when cleaned, my five-pound fleece was one pound the heaviest. Those sheep with extremely greasy fleeces, should be discarded, as the wool becomes cold, and the sheep chilled. They will freeze almost as quick as a cabbage plant, and need blanketing in the barn. By a careful selection of ewes I am enabled to get a hundred good lambs from a hundred and one ewes, and can do this every year. A pen 40 feet in length by 15 in width, is room enough for a hundred sheep in winter, and they will do better than where more room is provided.

BAKER, of Steuben Co.—Have kept Merino sheep all my life. Commence in October, as soon as pastures get poor, and give a little grain until winter sets in. Then take into the sheds. Give them hay in racks, twice a day, and more or less grain. Stable all winter. Keep 400 sheep in one barn 90 by 45 feet, divided into three parts by a low board fence. The product of my sheep averages about \$2 per head. Feed considerable straw, and when I do this continually for any length of time, give grain. Usually feed roots to ewes some twenty days before lambing. The turnip is a somewhat uncertain crop, but beets are sure and valuable. Have kept eight hundred a year on less than two hundred acres, including hay and pasture. The fleece averages from 4½ to 4¾ pounds each. The wool is somewhat greasy, but not what may be called gummy. I think it very desirable to increase our flocks, for the purpose of keeping up the fertility of the land. There is nothing like it. Have raised 120 bushels of shelled corn on an acre, where sheep had been kept. Have had no experience with coarse-wooled sheep.

HARMON, of Monroe Co.—Some 40 years ago commenced with Merino sheep. After five years' trial of these, obtained an imported Leicester buck, which resulted in detriment to the flock, and this cross I soon abandoned. Never let my ewes have lambs until three years old. The range of average weight of fleece in different years is from four to five and one-fourth pounds. Last year the product of 328 sheep in wool, was \$707; the year before, from 330, \$705. Feed but little hay; use straw, corn, oats and some bran. Put about 50 in a stable 14 by 40, and keep from fall to spring. Wash in running water until it ceases to be discolored. Let sheep run from five to eight days after washing before shearing. The wool is not gummy, but thick and fine. Feed in racks. Have some low land, which produces a grass that will keep sheep alive, but make no tallow. Believe long-wooled sheep tender. The wool is long and open, and parts, leaving portions of the skin almost bare. The water gets in and the sheep take cold and die. I lost several by consumption.

WADE.—Is not the crossing of the Merino ewe with the Leicester buck an unnatural cross? Did you ever try the Leicester ewe with the Merino buck?

HARMON.—Never have; never bred a long-wooled ewe.

ALLEN, of Black Rock.—Have kept sheep 25 years. My land is a clay loam; lies well up, with good surface drainage; natural to timothy, blue

grass, oats and corn. The best Canada farmers are mostly foreigners, and are somewhat prejudiced in favor of breeds of sheep popular in Europe. They certainly have most beautiful and magnificent animals of enormous size. They find them profitable, no doubt, but no man can eat them any more than he can eat a cake of tallow. Have seen these sheep in New York and they are bought by the keepers of large hotels, like the St. Nicholas, to grace the tables, but only a few ounces are eaten. The long-wooled sheep need shelter, for the wool parts, and in wet weather they get cold. They need grain in winter, and some roots; but in our climate, too many roots are apt to scour. The climate of England is different, and there roots are a necessity. Here corn takes the place of roots. They are beautiful sheep, shearing from five to eight pounds of wool.

BOWEN, of Orleans Co.—I can hardly sit still and hear such remarks about long-wooled sheep. I live only about thirty miles from the last speaker. I have yearlings that weigh 150 pounds. Don't know anything about the tendency of long-wooled sheep to take cold, but know they are harder than the Merinos. Have kept sheep all my life. Long-wooled sheep in New York will bring \$8 to \$10, while Merinos are selling at from \$1.50 to \$3. There have been long, gaunt, worthless, long-wooled sheep in Western New York, and perhaps to these the objections stated will apply. My sheep are called Cotswold, though perhaps they are not purely of this breed.

ALLEN.—I acknowledge the long-wooled is a grand sheep, but it is not suited to all farmers under all circumstances. When farmers live near a railroad, where mutton sheep are in demand for market, it is better to raise mutton sheep. But, when distant from market, it is better to grow for wool. I have fed and fattened a great number of South Downs, and find it best to get them pretty fat on grain. They mature earlier than most any other sort, and bring more profit. At my place I find it most profitable to raise mutton sheep. Can raise as many lambs from South Downs as any others, and they make the best mutton.

DICKINSON, of Steuben—Can you tell, by tasting, the difference between mutton of the South Down and the Merino sheep?

ALLEN.—I think I can. The fleece of the Merino is oily. This oil comes from the flesh, and gives it a bad flavor. In eating Merino mutton you can almost taste the wool. The South Down wool is dry, and the mutton beautiful.

ROBINSON, of New York.—South Down mutton brings the highest price in New York, and next to that the Longworth sheep of Canada. Still, there is not that nice distinction made that should be. Samuel Thorn buys every fall poor ewes coming from the West, breeds from them, and fats both lambs and ewes, making a profit of \$7 on each ewe he buys. This would be a very profitable business for the farmers in the vicinity of New York city.

RAKING MADE EASY.—Last summer, but rather late in haying time, we spoke of a new *Drag Rake*, made by Mr. S. HEYWOOD, of Claremont, N. H. We used it through the latter part of the

last haying season, and have continued to do so this season, and the opinion formed of it then, is abundantly confirmed by our later experience with it. A farmer getting twenty tons of hay, had better pay \$5 for it, than try to do without it. Price \$1.25, sold by Nourse & Co., 34 Merchant's Row, Boston.

*For the New England Farmer.*

#### THE INJURED FRUIT TREES.

I have been watching, Mr. Editor, with a good deal of interest, for the full development of injury to fruit trees in this region by the severe frosts of the first days of May. I think it was on the morning of the second of May that the hardest of these frosts came upon us. It was so severe that ground spaded up the day before could be walked on with scarcely an indentation by the feet.

I think the injury to some classes of trees is much greater than is generally supposed. Looking at the cherry trees, for instance, I find that not only was the crop for this season entirely cut off, but the numerous spurs from which the fruit buds projected are nearly all killed. Consequently we can have very little fruit next season; for although numerous new shoots are being thrown out on young and vigorous trees, yet it is well known that these fruit spurs do not form on the first year of the new wood. Old trees can scarcely ever recover so as to come into full bearing, as their vital energy is exhausted to a great degree, while even younger trees can hardly be as prolific as heretofore. The only complete remedy is to commence at once the setting out of new trees.

The same remark applies also to the plum. The fruit spurs have been killed on plum trees to nearly the same extent as on the cherry. The trees are throwing out vigorous new shoots, but they will scarcely be available for fruit in less than two years, and even then the crop must be small, to say nothing of the danger that in the meantime the fungus, called the black wart, will get the upper hand. The prospect for plums is decidedly bad, but it is too good a fruit to give up. Perseverance may bring it round again to its old standard.

Quince trees are very badly killed—one-half the shoots, at least, being dead. Unlike most other fruits, the blow of the quince does not form on a bud of the preceding year, but on a newly formed shoot; and although the crop of the present year is nearly destroyed, and the trees very badly injured, there is nothing now to indicate that a fair supply may not be had the coming season.

Of pears there will be a few; but the fruit buds, and even many of the fruit spurs, have been killed to an extent never known before in this part of the country. Fortunately, the pear tree seldom throws out fruit buds in all its little spurs the same season, like the cherry, and consequently, the leaf spurs having generally escaped the frost, may form fruit buds for the coming year. Pear trees, so far as my knowledge extends, are making a very vigorous growth the present season. Some kinds, as the Bon de Jersey, have nearly escaped the effect of the frost,

while others, as the Bartlett and Beurre Diel, are nearly denuded of their fruit.

The damage to apple trees does not appear to be great. Some fruit buds were killed, but the crop was so great last year that comparatively few of them were formed.

As to peaches, nearly all the old trees are killed outright, while the young trees are making a very vigorous growth. We shall have peaches again in a couple of years, if some other disturbing cause does not intervene. E. C. P.

*Somerville, 1861.*

### SUMMER.

The fickle year is in his golden prime,  
The world is dreaming in a hazy lustre,  
And round the altar of our summer time  
The blushing roses cluster.

Upon the mountain dwells impassioned light,  
And in the valley sleeps a shade depressing,  
While fields of waving wealth enchant the sight,  
Like gold of God's own blessing.

The plowman rests beneath the wayside tree,  
The stream curls slowly round the hoofs of cattle,  
And o'er the meadow floats the droning bee,  
Fresh from his flowery battue.

Soft through the southern meshes of the vine,  
I hear the birds unto each other calling;  
And in the casket of the eglantine,  
The tropic dews are falling.

Far in the distance rolls the sluggish sea,  
With not enough of life in all its breathing  
To bid the sail from its rude bounds go free,  
And spurn its hempen wreathing.

On all there rests a halo and a hush,  
The spell of poesy is on the blossom,  
And Nature's spirit slumbers in a blush,  
Caught from high Heaven's bosom.

The past and future blend in one sweet sleep,  
The world's a dream, and care a hidden murmur  
Whose tears, however madly he may weep,  
Are but the dews of Summer.

*For the New England Farmer.*

### THE BUCKEYE MOWER.

This morning I witnessed the operations of the Buckeye mower upon the farm of Mr. Haven Ayer. The field contained about two acres, of as handsome herdsgrass, as I have seen, estimated two tons to the acre. About half of it was cut on Saturday, and now stood in cocks, covered with caps, that completely protected it from the wet of last night. The machine was drawn by two horses, weighing about 1100 pounds each. The average time for cutting an acre was about forty minutes. Mr. Ayer drove himself. He told me he liked the machine better than any other that he had used. I know that he has used Allen's and Manny's. His operations strongly confirm what you have said of the beneficial use of mowing machines. Near by Mr. A.'s field, I saw Mr. Tilton's wheat, now standing more than four feet high, and promising a rich harvest.

*South Danvers, July 15, 1861.* J. W. P.

**HOW TO MULCH.**—The Editor of the *Prairie Farmer* while on duty with the "Farm Committee" heard a farmer scolding his hired man for putting mulch close to the body of trees, and thinks the following remark worth remembering as a guide to the proper way of applying mulch: "I should as soon think, said our friend Minkler, of

tying a stocking about the ankle to keep the toes warm."

### PREMIUM CROPS OF WHEAT.

The following statements were made by the three farmers to whom premiums were awarded on wheat, by the Hillsborough Co., N. H., Agricultural Society.

The land on which I raised this wheat is about half a mile north of Hillsborough Centre, on a high hill, the highest land cultivated in town, except in one or two instances, and so windy and cold that corn does not do the best. In 1859 the piece was planted, part corn and part potatoes, and manured with about 50 ox-cart loads of manure taken from the barn cellar. Last spring I plowed the land twice, about eight inches deep, and sowed four bushels of wheat, but the seed was threshed in a new machine and injured so that it did not all sprout. The result was that on 225 square rods of land I had seventy bushels of wheat—making 49 7-9 bushels per acre.

JAMES M. WILKINS.

*Hillsborough, Nov., 1860.*

The piece contained 1 7-8 acres. Broke in 1857. One-half sowed with oats, and the remainder planted with potatoes, in 1858. In 1859, planted with corn—manure, 20 loads. 1860, sowed with wheat—raised 75 bushels—making 40 bushels per acre.

DANIEL PAIGE.

Herewith I respectfully submit to the Committee on Farms and Field Crops a statement of a crop of wheat I raised the present season and entered for a premium to the Hillsborough County North Society. The land on which I raised this wheat is situated in the south part of Hillsborough, near the Contocook river; is a light, loamy soil. Last year the land was planted with corn and manured with a shovelful of manure in the hill, only. Last spring I carted on twelve large ox-loads of long manure from the barn, spread and plowed it in, about seven inches deep, and sowed the wheat about the middle of April. The result was I had thirty-five bushels of good wheat, on just one acre of ground. S. N. SAWYER.

*Hillsborough, Nov. 7, 1860.*

**A SPECIAL MANURE—Not Patented.**—At the Woodbury plowing match Mr. John Daw told the following anecdote:

Having drained a field where nothing had ever grown before, I was standing near looking at a crop I had there, when a neighboring farmer came up. We had one or two loose farmers in our neighborhood; one of them, in fact, came from Woodbury, [laughter;] but that is not the man I am speaking of. He came up to me and said:

"That is a bootiful crop! How did you get it, sir?"

I replied, "Brains." [Laughter.]

"What! manure the field wi' brains?" [More laughter.]

"Yes." [Renewed laughter.]

"Goodness, yer honor, where did you get 'um?" [Roars of laughter.]

## LADIES' DEPARTMENT.

### DOMESTIC RECEIPTS.

**DRYING THE COMMON RED CURRANT.**—We copy the following method from the last number of the *Horticulturist*. Many of our readers will find it just in time to give it a fair trial. The editor of the *Horticulturist* having examined the currants prepared in this way, highly commends it.

The currants should be quite ripe when gathered, with the stems attached, and washed or rinsed effectually and drained off. Then stem them and wash them thoroughly, and to each pound of currants add a quarter of a pound of good Havana sugar; then place them in a preserving kettle over a fire until they come to a *scald heat*, when they are turned out into white earthen dishes, and exposed to the action of the sun until, by evaporation they become hardened on the upper side. Then they are turned over, and there remain until they become so on the other side, and so alternate until they become a sort of leathery texture, when they are put away in earthen jars or boxes until wanted for use. Care must be taken to keep them from the dews of night and rains during the process of drying; finally, the utmost cleanliness should be observed from first to last.

When used, enough hot water is required to dissolve them or render them to any consistency suitable for tarts, jelly, &c. At the same time, more sugar is required to make them quite palatable, which must of course be governed by taste. Currants in this way have kept well with us for three years, and the presumption is that they will keep for a longer time, if well cared for.

**HOW TO HAVE TENDER MEAT IN HOT WEATHER.**—While referring to the flavor of fish, I would point out a very simple plan for ensuring tender meat, and baking it in the jungle. It is not generally known that if the flesh of any animal is cooked directly it is killed, so promptly in fact that the heat of roasting or boiling will warm it before its own animal heat has left it, it remains perfectly tender. Several days of keeping or hanging are required only for the purpose of removing that toughness and rigidity which newly killed meat acquires when cooling. Suppose then a wild fowl or a porcupine shot in the neighborhood of the camp, which is always supplied in the noon with a blazing wood fire; the first thing to be done is to cut and wash out the trail, or gralloch the porcupine, while an attendant mixes up some clay and water into a thick paste, which is quickly smeared all over the animal, the quills or feathers giving it a firm hold. This strange looking mud-pie is then laid in the fire, which first dries and bakes the mud covering into a seamless earthen vessel, which retains the juice of the meat while baking; some experience is requisite to determine the time for removing the dish and placing it on the table or the ground, when a blow with the tent peg separates the case with its quills and feathers, and gives access to the carnal kernel within.—*Dunlop's Hunting in the Himalaya.*

**TO REMOVE STAINS FROM THE HANDS.**—Damp the hands first in water, then rub them

with tartaric acid, or salt of lemons, as you would with soap; rinse them, and rub them dry. Tartaric acid, or salt of lemons, will quickly remove stains from white muslin or linens. Put less than half a teaspoonful of the salt or acid into a table-spoonful of water; wet the stain with it, and lay it in the sun for an hour; wet it once or twice with cold water during the time. If this does not quite remove it, repeat the acid water, and lay it in the sun.

**TO MAKE BAKER'S YEAST.**—Boil two ounces of hops one hour in nine quarts of water; take seven pounds of mashed potatoes, when the liquor is milk warm, and add one pound of sugar, two ounces of carbonate of soda, half an ounce of spirits of wine, one pound of flour, and half a pint of brewer's yeast to work it.

### WOMAN AND HOME.

There is a bundle of delight bound up in the sweet word, home. The word is typical of comfort, love, sympathy, and all the other qualities that constitute the delights of social life. Were the every-day enjoyments of many of our pious, intelligent and affectionate families faithfully portrayed, they would exceed, in moral heroism, interest, and romance, most of the productions of the pen of fiction. The social well-being of society rests on our homes, and what are the foundation stones of our homes but woman's care and devotion?

A good mother is worth an army of acquaintances, and a true-hearted, noble-minded sister is more precious than the "dear five hundred friends."

Those who have played round the same doorstep, basked in the same mother's smile, in whose veins the same blood flows, are bound by a sacred tie that can never be broken. Distances may separate—quarrels may occur, but those who have a capacity to love anything, must have at times a bubbling up of fond recollections, and a yearning after the joys of by-gone days. Every woman has a mission on earth. There is "something to do" for every one—a household to put in order, a child to attend to, some class of unfortunate, degraded or homeless humanity to befriend. That soul is poor, indeed, that leaves the world without having exerted an influence that will be felt for good after she has passed away.

There is little beauty in the lives of those women who are drawn into the gay circles of fashionable life, whose arena is public display, whose nursery is their prison. At home, in the inner sanctuary of home life, woman appears in her true glory.

EVERYBODY is interested to know how to drive away mosquitoes. Camphor is the most powerful agent. A camphor bag hung up in an open case-ment will prove an effectual barrier to their entrance. Camphorated spirits applied as perfume to the face and hands will prove an effectual preventive; but when bitten by them, aromatic vinegar is the best antidote.

THE finest composition of human nature, as well as the finest china, may have flaws in it, though the pattern may be of the highest value.

## FANNY FERN ON SONS-IN-LAW.

Fanny Fern, having lost her eldest daughter in marriage, makes the following reflection, by her rather significant. When she penned them Doesticks had probably just declared his intentions:

"How any young fellow can have the face to walk into your family, and deliberately ask for one of your daughters, surprises me. That it is done every day does not lessen my astonishment at the sublime impudence of the thing. There you have been, eighteen or twenty years of her life, combing her hair and washing her face for—*him!* It is lucky the thought never strikes you while you are doing it, that this is to be the end of all. What if you were married yourself? that is no reason why she should be witched away into a separate establishment just as you begin to lean upon her, and feel proud of her; or, at least, it stands to reason that after you have worried her through the measles, the chicken-pox, scarlet fever and whooping cough, and had her properly baptized and vaccinated, this young man might give you a short breathing time before she goes. *He* seems to be of a different opinion; *he* not only insists upon taking her, but upon taking her immediately, if not sooner. He talks well about it—very well; you have no objection to him, not the least in the world, except that when the world is full of girls, why couldn't he fixed his eye on the daughter of somebody else? There are some parents who are glad to be rid of their daughters. Blue eyes are as plentiful as berries; why need it be this particular pair? Isn't she happy enough as she is? Don't she have meat, and bread, and clothes enough, to say nothing of love? What is the use of leaving a certainty for an uncertainty, when that certainty is a mother, and you can never have but one? You put all these questions to her, and she has the sauciness to ask if that is the way you reasoned when father came for you. You disdain to answer, of course; it is a mean dodging of the question. But she gets round you, for all that; and so does he, too, though you try your best not to like him; and with a 'Well, if I must, I must,' you just order her wedding clothes, muttering to yourself the while, 'Dear, dear, what sort of a fist will that child make at the head of a house? How will she ever know what to do in this, that, or the other emergency!—she who is calling on 'mother' fifty times a day, to settle every trifling question! what folly for her to set up house for herself!' How many mothers have had these foreboding thoughts over a daughter! And yet that daughter has met life, and its unexpected reverses, with a heroism and courage as undaunted as if every girlish tear had not been kissed away by lips that, alas! may be dust, when the baptism and womanhood comes upon her."

THE NEW FLORAL BEAUTY.—The new pink, *dianthus Heddeewigi*, which took the prize, as the finest floral novelty, at European exhibitions last year, is now being very extensively grown in this country. Considerable quantities of the seed have been imported, and almost all of the prominent florists now have the young plants on sale. It is easily raised from the seed, and is a strong and vigorous grower. The flowers are said to be

beautiful beyond description. They are nearly three times larger than other pinks, are of rose, crimson and violet colors, with some delicate marble shades, white and mottled flakes. The plant grows to a foot in height, is covered with a profusion of flowers, and presents a most magnificent appearance. The flower is named after its introducer, a Russian gardener.

## LAVENDER WATER.

The following recipe for the manufacture of lavender water is given by Mr. Piesse in his Scientific Melange for Young People:

"The flowers must be gathered, with as little stalk as possible, then place them in a jar three parts full of sweet olive or almond oil; after the flowers have been in the oil from twelve to twenty-four hours, the whole must be put into a coarse cloth, and the oil forcibly squeezed from them, then fresh flowers must be added, and this process repeated for twelve days, according to the strength of the perfume desired. When the odor of only one flower is required, an incredible quantity of flowers are necessary to produce a scented oil, and for that purpose they would require special cultivation.

In England no less than about 270 acres of its precious land is devoted to lavender farming. Each acre yields say 6200 pounds of flowers. A 100 pounds of flowers give up by distillation about one pound of the otto of lavender; and thus we learn that there is an average production of 7000 pounds of lavender otto annually. It requires six ounces of this to make a gallon of lavender water, so that Britannia and her children—you know their names, Jamaica, Canada, Australia—together with a few visitors, America, Germany and Russia, use, and take home with them the enormous quantity of 17,000 gallons of this favorite spirit. The lavender farms of England are situated at Mitcham in Surrey, and at Hitching in Hertfordshire. At Mr. Perk's farm, of the latter place, the lavender when in blossom is resorted to by all the bees for miles round. The sound of their hum in such vast numbers is quite enchanting; nor do the butterflies neglect to visit so luxurious a feast, the taste of which appears to be particularly grateful to them. The bees' love for the lavender is so excessive, that at the harvest time, as the sprays fall before the sickle and are tied up into sheaves, they will follow it even at a sacrifice of life into the boiling still."

HOW THE JAPANESE RESTORE FADED FLOWERS.—After a bouquet is drooping beyond all remedies of fresh water, the Japanese can bring it back to all its first glory by a simple and seemingly most destructive operation. A writer at Nagasaki says: I had received some few days ago a delightful bunch of flowers from a Japanese acquaintance. They continued to live in their beauty for nearly two weeks, when at last they faded. Just as I was about to throw them away, the same gentleman (Japanese) came to see me. I showed him the faded flowers, and told him that, though lasting a long time, they had become useless. "O no," said he, "only put the ends of the stems in-

to the fire, and they will be as good as before." I was incredulous; so he took them himself, and held the stems' ends in the fire until they were completely charred. This was in the morning. At evening they were again looking fresh and vigorous, and have continued so for another week. What may be the true agent in this reviving process, I am unable to determine fully; whether it be heat driving once more the last juices into every leaflet and vein, or whether it be the bountiful supply of carbon, furnished by the charring. I am inclined, however, to the latter cause, as the full effect was not produced until some eight hours afterward, and as it seems that, if the heat was the principal agent, it must have been sooner followed by visible changes.

#### LIME FOR GREEN FLIES AND ROSE-HOPPERS.

—A few days ago, we discovered that a number of our rose bushes were thickly covered with the green-fly and rose-hopper, and tried what effect air slaked lime would have upon them. Bending the branches over so as to expose the underside of the leaves, they were thoroughly dusted, and in particular, all the young shoots where the green fly was most abundant, leaving the plants quite white. On examining them afterwards, we found that wherever the lime went, the insects had disappeared, and they are now clearer than they have been for years, although care has always been taken to destroy these insects by soap suds, and even tobacco water applications.—*Ohio Farmer.*

### YOUTH'S DEPARTMENT.

#### CRACKING A COMMANDMENT.

A little girl once went with her mother into a shop; as she stood there she saw a basket of oranges for sale. They looked ripe and juicy. While her mother was engaged in another part of the store, she kept looking at the oranges. They made her mouth water, and the thought came into her mind: "O! I wish I had one of them." This was the beginning of the temptation. She ought to have resisted this, and turned away from them; but she didn't; she kept looking at them, and the longer she looked, the more she wanted one. At last, watching her opportunity when no one saw her, she grabbed an orange, put it in her pocket and walked away. In a moment her conscience began to trouble her; she felt very uncomfortable indeed. Presently she sidled up to the basket and put the orange back again. Still she kept looking at it. She was tempted again to take it, and again she put it back.

As she walked home with her mother, she looked and felt very sad. When they were alone she burst into tears, and said: "O mother! I have cracked one of the Commandments. I didn't break it; I didn't quite break it, mother, but I'm sure I cracked it."

This little girl did right in putting the orange back. This kept her from quite breaking the commandment; but if she had resisted the *beginning* of the temptation, by turning away from the orange the moment she felt a desire for it, she would not have even cracked the commandment. We must resist *little temptations*, the very begin-

nings of evil. We must also pray to God to keep us from temptation. This is what Jesus has taught us to do every day, when in the Lord's prayer we say—"Lead us not into temptation."—*King's Highway.*

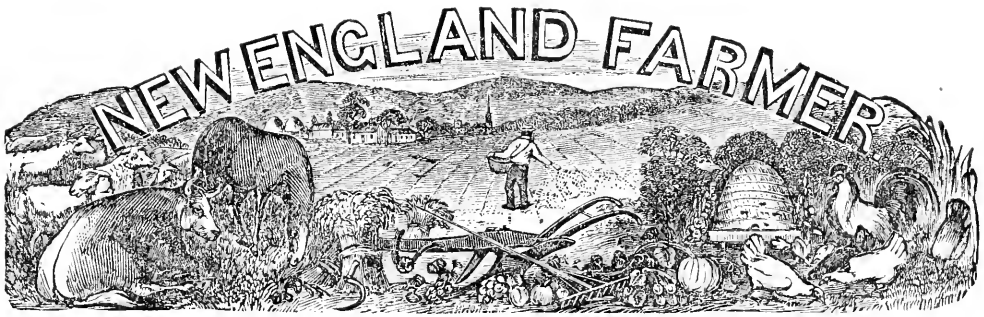
#### THE POWER OF ONE GOOD BOY.

"When I took the school," said a gentleman, speaking of a certain school he once taught, "I soon saw there was one good boy in it. I saw it in his face. I saw it by many unmistakable marks. If I stepped out and came suddenly back, that boy was always studying, just as if I had been there, while a general buzz and the roguish looks of the rest showed there was mischief in the wind. I learned he was a religious boy and a member of the church. Come what would, he would be for the right.

"There were two other boys who wanted to behave well, but were sometimes led astray. These two began to look up to Alfred, and I saw, were much strengthened by his example. Alfred was as lovely in disposition, as firm in principle. These three boys began now to create a sort of public opinion on the side of good order, and the master. One boy and then gradually another sided with them. The foolish pranks of idle and wicked boys began to lose their popularity. They did not win the laugh which they used to. A general obedience and attention to study prevailed. At last, the public opinion of the school was fairly revolutionized; from being a school of ill-name, it became one of the best-behaved schools anywhere about, and it was that boy Alfred who had the largest share in making the change. Only four or five boys held out, and these were finally expelled. Yes," said the teacher, "it is in the power of *one* right-minded, right-hearted boy to do that. He stuck to his principles like a man, and they stuck to him, and made a strong and splendid fellow of him."

#### MY MOTHER.

I am now so far advanced in life that my friends begin to call me old. But I have not lived long enough to learn why I should not still respect my mother, and regard her affectionately. She is quite advanced in years, and has nearly lost her sight. She sits within a few feet of me, sewing up a rent in my linen coat while I write this. She knows not what I am writing. She has been a widow eight years, and is still toiling for the welfare of her children. She has never studied grammar, nor philosophy, nor music. These things were seldom taught in her young days; but she knows their value, and has toiled many a hard day to purchase books for children, and support them at school. And shall I now curl the lip in scorn, or blush in company, to hear her substitute a verb of unity for one of plurality, or pronounce a word twenty years behind the Websterian era? Never—no, never! The old dilapidated grammar in my library might testify against her style; but its testimony would be infinitely more terrible against my ingratitude. I recollect well when she rode seven miles, one cold winter's day, to sell produce and purchase that book for me, when I was a little boy. It required a sacrifice, but "mother made it."—*Home Journal.*



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SIMON BROWN, EDITOR.

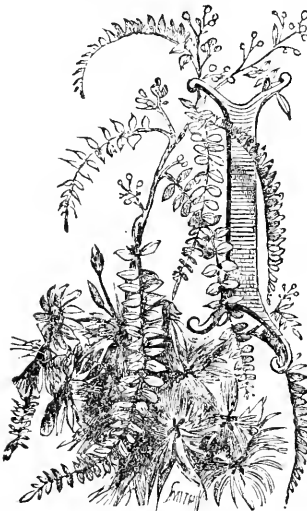
FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

SUGGESTED BY SEPTEMBER.

Autumn paints

Ansonian hills with grapes, whilst English plains  
Blush with pomaceous harvests breathing sweets.

O let me now, when the kind early dew  
Unlocks the embosomed odors, walk among  
The well ranged files of trees, whose full-aged stores  
Diffuse ambrosial streams, than myrrh or naiad  
More grateful, or perfuming flowery bean.  
Soft whispering airs, and the lark's matin song  
These woo to musing, and becalm the mind  
Perplexed with irksome thoughts. Thrice happy time,  
Best portion of the various year, in which  
Nature rejoiceth, smiling on her works  
Lovely, to full perfection wrought.—*Philips.*



It has been said that the farmer, like the manufacturer, pursues his business to earn a livelihood for himself and family, and to accumulate a small store for a rainy day. True. But, in the language of a late able writer, "Every farmer, great or small, is a manufacturer. In

the manufactory which he superintends, is made butter, cheese, pork, beef, corn, potatoes—in fact, all the real necessities of life." And then, as R. W. Emerson says, his servants are "Chemistry; the pure air; the water brook; the lightning; the cloud; the winds, that have blown an interminable succession of years before he was born; the sun, which has for ages soaked the earth with light and heat, melted the earths, decomposed the rocks, and covered them with frosts.

and accumulated the stagnum which makes the heat of the meadow.'

The most successful farmer, now, is not the man who cultivates the greatest number of acres, but he who applies the most of thought to his business. The days of *routine* farming are, happily, closing, and the farmer who plods wearily on in the track of his predecessors, unmindful of the improvements, and disregarding of the capabilities of agriculture, is certain to be left behind. The great problem to be solved is, not how to produce large crops, but how to produce crops with the most profit; in other words, how to produce remunerating harvests without abstracting from the soil all the fertilizing particles which constitute its fertility and strength. What we want is to be able to produce the greatest possible product per acre, and still secure fertility to the soil, making poor land rich, or rich land richer, with the least possible outlay, or expenditure for labor and manure. This should be the chief aim of the farmer.

A *great* crop of corn or wheat may be an *unprofitable* one; it may not pay expenses, and leave the soil in a condition unable to supply aliment to a succeeding crop. It takes long to recuperate an exhausted soil, even under judicious and liberal management; it is like a diseased constitution in man. A piece of land affluent in the elements of fertility, giving a generous yield to toil, makes a happy and contented farmer. Such a one is certain of dividends when banks fail. "There are," says a late writer, "manifold details of husbandry which require forecast and reflection."

Now is the time to lay plans for the coming year, and for the distant future. He who does this, will manage with a grace, and become a wiser and better man. The present is a favorable season to initiate such a work. Most cultivators complain of a want of manure for their acres. They indulge in useless speculations as to the

wonders they could achieve if they only could command a sufficiency of the article. They have teams of oxen or horses which must be fed whether they are employed or suffered to remain idle. The present is a good time to employ them in forming compost heaps for farm use. On most farms, there are deposits of valuable muck, and the team may be profitably employed in drawing out and depositing this article in situations where it will be easily accessible when wanted for future use. The dry weather which we usually have during this delightful month, is peculiarly favorable to this operation, and the comparative leisure enjoyed seems to indicate it as the most appropriate opportunity that can be selected for the work. Good muck is a valuable article, and composts formed of it, are perhaps the best stimuli that can be applied to most crops—especially, on our sandy loam lands.

During this month the careful farmer will make proper preparations for the comfortable shelter of his domestic animals during the approaching winter. A much less quantity of food is required by a stock of animals if they enjoy a proper warmth—and dairy animals yield, it is said, about one-third more milk and butter.

Root-crops which have been kept clean during the season, are often neglected at this period of their growth, and suffered to become weedy. Go through the grounds carefully, and destroy every weed. It is bad policy, after having been to the expense of numerous hoeings, to permit the soil to become foul with spurious products which will mature their seeds, and render the land corrupt for many succeeding years.

Cellars should now be thoroughly ventilated and whitewashed, and the bins prepared for the reception of the several root-crops now rapidly verging to maturity in the fields. A cellar cumbered with rubbish and foul matter is not a proper place for the deposition of edibles of any description, while one that is clean and neatly kept is an interesting sight. Roots, cabbages, &c., in any considerable quantity, never should be kept in the cellar of the dwelling-house, as the odor arising from them soon pervades the rooms and renders the atmosphere impure and unhealthy.

Hogs intended for the meat tub, should now be put up to fatten. Keep them clean; feed liberally and regularly, and be careful to keep them warm and dry.

September is a proper month in which to turn in green crops by plowing. At this season of the year there is much green matter on the surface, which, if turned under by the plow, will supply a tolerably good dressing to the soil, and be a means of preparing it for the production of a crop of roots or grain.

Go through your cornfields as soon as the

gleam of the golden grain can be seen through the opening husks, and select the largest and best formed ears for seed. In this way you may effect a most valuable improvement in the grain, and with very little trouble or expense.

#### BEAUTY OF MOSSES.

Lichen and mosses, though these last in their luxuriance are deep and rich as herbage, yet are for the most part of the humblest of the green things that live. Meek creatures, the first mercy of the earth, veiling with hushed softness its dintless rocks; creatures full of pity, covering with strange and tender honor the scarred disgrace of ruin, laying a quiet finger on the tumbling stones, to teach them rest. No words that I know of, will say what these mosses are. None are delicate enough, none perfect enough, none rich enough. How is one to tell of the rounded bosses of furred and beaming green, the starred divisions of rubied bloom, the traceries of intricate silver and fringes of amber, lustrous, arborescent, burnished through every fiber into a fitful brightness and glossy travesty of silken change, yet all subdued and pensive, and framed for sweetest offices of grace. They will not be gathered, like the flowers, for chaplet or love-token, but the wild bird will make his nest of them, and the weary child his pillow. And as the earth's first mercy, so are they its last gift to us. When all other service is vain from plant and tree, the soft mosses take up their watch by the head-stone. The woods, the blossoms, the gift-bearing grasses, have done their parts for a time, but these do service forever. Trees for the builder's yard, flowers for the bride's chamber, corn for the granary, moss for the grave. Yet as in one sense the humblest, in another they are the most honored of the earth-children. Unfading as motionless, the worm frets them not, and the autumn wastes not. Strong in lowliness, they neither blanch in heat nor pine in frost. Slow-fingered, constant-hearted, to them is entrusted the weaving of the dark, eternal tapestries of the hills; to them, slow-pencilled, iris-dyed, the tender framing of their endless imagery. Sharing the stillness of the unimpassioned rock, they share also its endurance; and while the winds of departing spring scatter the hawthorn blossoms like drifted snow, and summer dims on the parched meadow the drooping cowslip gold, far above, among the mountains, the silver lichen spots rest, star-like, on the stone, and the gathering orange stain on the edge of yonder western peak, reflects the sunsets of a thousand years.—*Ruskin*.

SKIMMING MILK.—Our women have a way of taking off the cream without the use of the skimmer. They use a knife only. They run the knife around the milk in the pan to separate the cream from the sides of the pan. Then they set the bottom of the milk-pan at the edge, on the rim of the cream-pan, then with the left hand elevate one side of the milk-pan so that the cream with the help of the knife in the right hand, will run off into the cream pan. After a little practice, it is done very quickly, and saves both time and cream.—*S. L. Wuttles, in Country Gentleman*.



**A TEN MILE ARMY OF ANTS,  
AND THEIR EXPLOITS.**

We take the following description of the "Bashikouay"—or reddish-brown African ant—from Du Chaillu's account of his African travels:

It is their habit to march through the forest in a long and regular line, about two inches broad and often ten miles in length. All along this line are larger ants, who act as officers, stand outside the ranks, and keep this singular army in order. If they come to a place where there are no trees to shelter them from the sun, whose heat they cannot bear, they immediately build underground tunnels, through which the whole army passes in columns to the forest beyond. These tunnels are four or five feet under ground, and are used only in the heat of the day or during a storm.

When they get hungry, the long file spreads itself through the forest in a front line, and devours all it comes to with a fury which is quite irresistible. The elephant and gorilla fly before this attack. The black men run for their lives. Every animal that lives in their line of march is chased. They seem to understand and act upon the tactics of Napoleon, and concentrate with great speed their heaviest forces upon the point of attack. In an incredibly short space of time the mouse, or dog, or leopard, or deer, is overwhelmed, killed, eaten, and the bare skeleton only remains.

They seem to travel night and day. Many a time have I been awakened out of a sleep, and obliged to rush from the hut and into the water to save my life, and after all suffered intolerable agony from the bites of the advance guard, who had got into my clothes. When they enter a house they clear it of all living things. Roaches are devoured in an instant, Rats and mice spring round the room in vain. An overwhelming force of ants kill a strong rat in less than a minute, in spite of the most frantic struggles, and in less than another minute its bones are stripped. Every living thing in the house is devoured. They will not touch vegetable matter. Thus they are in reality very useful (as well as dangerous) to the negroes, who have their huts cleaned of all the abounding vermin, such as immense roaches and centipedes, at least several times a year.

When on their march, the insect world flies before them, and I have often had the approach of a bashikouay army heralded to me by this means. Wherever they go they make a clean sweep, even ascending to the tops of the highest trees in pursuit of their prey. Their manner of attack is an impetuous leap. Instantly the strong pincers are fastened, and they only let go when the piece gives away. At such times this little animal seems animated by a kind of fury, which causes it to disregard entirely its own safety, and to seek only the conquest of its prey. The bite is very painful.

The negroes relate that criminals were in former times exposed in the path of the bashikouay ants, as the most cruel manner of putting to death.

Two very remarkable practices of theirs remain to be related. When, on their line of march, they must cross a stream, they throw themselves across and form a tunnel—a living tunnel—con-

necting two trees or high bushes on opposite sides of the little stream. This is done with great speed, and is effected by a great number of ants, each of which clings with its fore claws to its next neighbor's body or hind claws. Thus they form a high, safe tubular bridge, through which the whole vast regiment marches in regular order. If disturbed, or if the arch is broken by the violence of some animal, they instantly attack the offender with the greatest animosity.

The bashikouay have the sense of smell finely developed, as indeed have all the ants I know of, and they are guided very much by it. They are larger than any ant we have in America, being at least half an inch long, and are armed with very powerful fore legs and sharp jaws, with which they bite. They are red or dark brown in color. Their numbers are so great that one does not like to enter into calculations; but I have seen one continual line passing at good speed a particular place for twelve hours. The reader may imagine for himself how many millions on millions there may have been contained here.

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**THE BAROMETER.**

Too much is usually expected from every thing new. The barometer has been much lauded of late, as a sure indicator of the state of the weather; but the farmer who places implicit reliance on its indications will surely be disappointed. To the farmer who is able to have one, I would say, buy it. It will prove a valuable aid to you in judging of the state of the weather. For several years I have watched its results with reference to the farmer, but my conclusions are somewhat different from those of published accounts. The following are a few of them.

If I see the barometer falling and the sky is overcast I do not expect good hay weather. Although it may not rain, it rarely clears away under such circumstances. If I see the barometer falling rapidly, I expect to see rain, or wind, or both. I saved a couple of tons of hay the last summer from a smart shower by a forewarning of this kind, besides notifying my nearest neighbor of the same thing.

When I see the barometer rising rapidly, no matter what the appearance of the sky may be, I am quite sure there will be no rain, and I can safely go to mowing in the shade of a thick cloud while my neighbors are in doubt. This I regard as the most valuable practical point to the farmer. On a lowering day the farmer knows that if he should mow down several tons of hay, he might lose many dollars by the operation. But if it should clear away, his several tons of grass already mown will be in fine condition for the barn before another rain.

I have noticed showers when the barometer was high, without any change whatever. The farmer cannot expect a plow, however well constructed, to go without a team, nor must he expect too much from the barometer.—*Dr. True's Address.*

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**DRAINAGE.**—The true principle of drainage is to get rid of stagnant water in the land at an expense consistent with the value of the land and the profits of husbandry.

*For the New England Farmer.*

#### ABOUT KEEPING "A CROWER."

MR. EDITOR:—I take peculiar pleasure in perusing the communications to your valuable paper, and am sometimes amused at the queer notions put forth in some of them. For instance, in a letter in the June number, signed "Warfield, Vt.," the writer states, "I do not keep a crower, as I save the cost of keep, and besides, what is a greater advantage, the hens may set several days longer on their eggs without spoiling them for use." What does he mean by the term "a crower?" Is it a crow of the comparative degree? Crow, crower, crowest—or is it an animal that crows and does nothing else? But joking aside, I cannot agree with "Warfield" at all, respecting the economy of not keeping a "erower." If the hens are not worth the cost of keeping a crower, besides their own keep, they are a poor set; besides, it is very ungenerous to deny them the pleasure of a companion, while the fancier takes all the eggs he can get from them.

The bird in question, call him what you may, is of great consequence in a hen-yard. He talks to the hens, helps them to select their nests, sympathizes with them in all their troubles, settles all their differences, calls them to breakfast and dinner, protects them from their enemies, &c. How is Warfield to keep up his stock or improve it? He must be totally dependent on some one else who is liberal enough to keep a crower, or else he will be in a bad fix. Again, as to the eggs keeping sound while sat upon. He must be a half-and-half hen fancier who does not take in the eggs every day. I never have any stollen nests in my establishment. I keep eleven hens and a crower, and can tell to which hen every egg belongs, when I take it from the nest; besides, I should like something more than mere assertion to convince me that a fertilized egg will not keep as well as the eggs from "Warfield's" hens. I would recommend him to get a crower and raise half a dozen pullets every summer in order that he may have a continuous yield of eggs, and be enabled to put away the old hens after they have passed their prime.

I would recommend the Black Hamburg as the best kind of fowls for general use, and they would suit "Warfield" to a nicety, as they never want to set. They are good layers, the eggs are nearly as large as those of the Black Spanish—and the fowls are handsome and well proportioned, not so long-legged as the Spanish. They have large rose combs which droop prettily on one side, and are hardy and easily kept. With these few remarks, I will close, hoping that the opinion that seems to prevail in the States, "that a crower ought not to crow," will shortly be exploded.

COCK-A-DOODLE-DOO.

*Halifax, N. S., July 8, 1861.*

REMARKS ON CLIMATE.—The attention of the reader is called to an article on the subject of our climate, which may be found in another column of this number. To us, it is very interesting and instructive—and we call the attention of young persons especially to it, that they may see what a field of interest lies continually before them in

this matter of the weather. If this article is carefully studied, it may excite a taste for further reading and investigation upon this important topic, and, with *some one*, may result in furnishing the world with a philosopher who shall prove a blessing to his race.

*For the New England Farmer.*

#### THE CAPITOL AT WASHINGTON.

All our readers will remember the vile letters that were sent from Washington some time ago, stating that our soldiers who were quartered in the Capitol were ravaging the rooms, defacing the pictures and statuary, and defiling the carpets. Our correspondent—whose place of business is in the Capitol—was passing a few days with us when these reports were received, and we requested him, upon his return, to write us the facts in the case, and his promise is fulfilled below—for which he will please accept our thanks. Our soldiers were sent, as he well says, to *protect* the Capitol, not to desecrate it, by destroying the rare works of genius and art which it has cost millions of treasure to supply. Such conduct would have been in keeping with the vandal spirit of the rebels, who have destroyed the most costly and useful works with ruthless and vandal hands. The persons who accused our soldiers of such wanton destruction are little better than the rebels who have occasioned the immense sacrifice of life and property which has already taken place.

*Washington City, July 14, 1861.*

MY DEAR BROWN:—You probably remember that when I last saw you at "River Cottage," I promised to write you on my return to this city, about matters and things here. Then, I supposed that I should do so immediately on my return, but alas! alas! humanity is prone to procrastinate; we think to-day that to-morrow, certainly, we *will* do this, or that, or the other thing. To-morrow comes, and it rains, or the weather is hot, or it is cold, or we don't feel exactly right, or—well, we may as well own up—a person who has no disposition to do a thing, who is, in fact, lazy, can always find plenty of excuses, and so "to-morrow, and to-morrow, and to-morrow" comes and goes, and the intended thing to be done, remains undone, perhaps forever. I do not, however, intend that the fulfilment of my promise to you shall be deferred quite to that extreme, and so, on this cold, cloudy, unpleasant morning, with the wind east, and the mercury at 62°, I sit down, in *my utter loneliness*, at my library-table, to endeavor to interest you, and perhaps your readers, for the space of fifteen minutes.

One of my promises, I remember, was that you should know *certainly* how much injury those pesky soldiers did to the Capitol, for there was no stint of disgusting description of the way they carried on in that stately edifice, where you and I have passed so many happy hours. *One lady*—I do not believe a lady ever wrote it, unless it were

a "French lady," like the redoubtable Col. Thomas, who performed that "brilliant exploit" of treason and piracy, by seizing the steamer St. Nicholas, and is now in durance vile, under the somewhat stern supervision of Gen. Banks—but it purports to be a lady—writes:

"The Northern press decline noticing the desecration of the Temple of Liberty, our Capitol! by their dirty, disgusting soldiery, who make a restaurant and sleeping-place of it, loll in its Senatorial seats, spit tobacco juice upon its superb carpets, deface its frescoed walls, and prick their bayonets by way of amusement in its magnificent paintings."

This, to be sure, was written for a Southern latitude. But even some of your Northern letter-writers did not scruple to talk of "the nails driven by the soldiers into the walls of the Halls of the Senate and House of Representatives," of the "piling up of greasy bacon hams on the superb carpets of the President's and Vice President's rooms," of the "breaking of the magnificent bronze railing of the private stairways for Senators and Representatives," &c., &c.

Now I know, from personal observation, that there is not one word of truth in any of these stories. The statuary and pictures were all covered, or cased, before a single company of soldiers entered the Capitol. The carpets were most all, if not all, taken up, and as for driving nails into the walls, let me remind those truthful writers who make such assertions, that they are entirely of *cast iron!* The magnificent railing—and it is magnificent—is *there*, as perfect as on the day it was put up. Not a picture, or piece of statuary received the least injury, and, this day, you cannot see, in any part of the building, the least indication that it was ever occupied by troops! It is really astonishing, considering that there were, at one time, thousands of men quartered in the Capitol, that so little injury was done, even to the furniture, which was necessarily in constant use day and night. The care of the soldiers of every thing, was most creditable to them, and I really believe they felt as much interest in preventing wanton or unnecessary injury, as if the property had actually been their own. They came here *voluntarily* to protect the Capitol and Capitol, not to commit waste and to destroy. In my judgment that *lady's* description would be far more applicable to her friend Jeff's troops, than to our Northern heroes. So much for that vile slander, come from whence it may.

We have all along believed in ABRAHAM LINCOLN; but when we read his message, written by his own hand, out of his own noble head and heart, we all knew certain that the Lord had sent him here to do what he is now doing. He is the instrument in the hands of God, to crush out, *squash* out, overthrow and annihilate Southern traitors and treason, and Congress is nobly, most nobly backing him up. I have never felt so proud of my Yankee birthright, as I have since this unnatural, unholy war, was commenced in earnest, by the Southern traitors at Fort Sumter. The way the bone and sinew of the North and West, all Yankeeedom in fact, have taken this matter in hand, is refreshing to a Union loving man of Yankee birth; and the unshaken determination that "Old Abe" shall be backed up till the last piece of hemp encircles the neck of the

last traitor, is only a foreshadowing of the glorious salvation that awaits the thirty-four United States of America. The thing is to be put through, and no mistake.

There are those who think Gen. Scott is keeping the brakes down rather too hard. I have great faith in the Old Hero. I believe that he sees an obstruction on the track that is not visible to us passengers, and it is to prevent a smash-up, that he is delaying the train. But, mark my prediction, when the old General does whistle "up brakes," there will be such a rush forward, that secession will hardly be heard of again, this side of the Archangel's trumpet. My opinion is, that we had all better wait the veteran's motion—let the *great conductor* take the responsibility, and there will surely be no failure.

So confident are we all here of the eventual success of our cause, that we feel calm and cool. Washington was never less excited than at this time. To be sure, there are immense movements of troops, and at this moment a long train of army baggage-wagons is passing my house. One can scarcely move about the city without seeing regiment after regiment moving forward to the south side of the Potomac, and thousands of troops have passed my house within the past week. But all these movements are conducted with an order, and a quietness that astonishes everybody. Not a loud word is spoken, except the word of command as the glittering columns are required to change direction; cheerfulness, but *determination*, marks every countenance, and "we will conquer or die," may be read in the look and movement of every soldier, as plainly as if it were printed in twelve line pica all over him.

The military movements are such, across the river, as to give certain indications of either a battle, or a retreat by the rebels, soon. Our troops are moving forward, while theirs are retreating. It is expected that they will make a stand at Manassas, but they are so accustomed to *running*, that I am doubtful if they stop short of Cuba. You remember that I told you, two months ago, that I did not believe they had sufficient courage to stand up to a fair, open fight; that, if they could, by some sneaking, underhand, cowardly movement, murder a few of our men, without danger to themselves, they would do it. Thus far my opinion has been sustained by their contemptible action, and I am confirmed in what I said.

The country about Washington, in an agricultural and horticultural point of view, never looked more beautiful. The late abundant rains, following the hot weather, have enlivened every thing, and it is a luxury to ride about the vicinity. My garden, of which you know something, is as beautiful at this moment as possible. It would gladden your heart to look at it.

Ever faithfully, B. B. FRENCH.

*Postscript.*—The foregoing was written early this morning. Now it is evening, and since it was written, I have seen the glorious news of the great battle of yesterday at Beverly, Va., in which Gen. McClellan routed the chivalry entirely, killing large numbers, taking many prisoners, and a large quantity of munitions of war, and showing that when our armies do strike, they do it with effect. Gen. Scott knows what he is about.

About an hour ago, a regiment, splendidly appointed and equipped, marched by, with 29 large baggage-wagons, doubtless bound across the Long Bridge, to the "sacred soil," where, ere long, they will make the fur fly, or, more probably, the critters that wear it. B. B. F.

#### THE SEASON AND THE CROPS.

Our people are now, July 20th, in the midst of their haying, the dry weather having induced them to commence a little earlier than they otherwise would have done. The grass crop is very large, and a large portion of it has been secured in admirable condition during the clear, hot days of the last of June and nineteen days in July. The low ground meadows are also heavily clothed with grass, with a prospect of an opportunity of getting it, unless heavy and continued rains set in at once. Pastures have been excellent all through the early part of the season,—but a little parched with drought since July came in.

Up to July first, corn was backward, but all the time sustaining a good color and vigorous stalks, though quite low. The steady hot weather for the last twenty-two or three days has made a wonderful change in it—it seems almost magical. We have had hot nights as well as days, and the corn has more than doubled its height during the time mentioned above, and at the same time has preserved its dark green color and its proportionate breadth of stem. A moderate supply of rain, with continued hot weather through the remainder of July and the month of August, will make a heavy crop of this prime article.

We learn with some anxiety, however, that in certain places this crop has been attacked by the *army worm*. A gentleman from Plymouth county informs us that he had an acre and a half of wheat cut down by them in a *single night*, and that they then attacked his corn. A stalk of the corn brought by him is before us, and contains two or three of the worms who have made their way up the stem. This worm is exceedingly destructive, because it does not take a plant and feed upon its bulk, but merely eats across it, and when it falls to the ground passes to another, and so on through the field. This is the manner in which the wheat field was destroyed so rapidly.

The worms we found in this corn are not like the army worm which annually infest our apple trees, either in form or color. The regular army worm marches in close columns, side by side, touching each other, and devour every green thing they meet. It is this *platoon* movement, and the destructive power they possess, that has given them the appropriate name of army worm. We trust that this scourge will not become general in our now fair and promising fields.

The winter and spring grains appear well; the

late drought has affected them in some degree, but there will be, we think, an average crop.

Potatoes have been affected by the dry weather, but the late rains will revive them, and as they have rooted deep in search of moisture, their growth will be all the more vigorous now.

Currants, raspberries, and some other small fruits, are not so abundant as they are in some seasons, but there will be a moderate supply. Of apples, pears and plums, there will be but a scanty crop.

Of the great staple crops, such as those upon which we must mainly rely for the sustenance of man and beast at home, and which we find it convenient to export when we have a surplus, there is now every promise of an abundant harvest.

Let us watch and tend them with judicious care, and then, whatever may be the issue, bow in grateful submission to Him who knows what is best, and who orders all things through an Infinite Wisdom that we can but imperfectly penetrate.

*For the New England Farmer.*

#### APPLE TREES.

I trim my apple trees in the spring after blossoming—just when they begin to grow rapidly. I am convinced that the scars will heal over sooner, if trimmed at that time, than if trimmed at any other time in the year. I begin to trim when the trees are very young, and trim them every year. In this way I am never under the necessity of cutting off large branches. Trees are always injured and often killed by cutting off the large branches that arise from the centre of the tree. One limb should never be permitted to rub another. If limbs do so, and both branches are equally healthy, I cut off that branch which originates farthest from the body of the tree. If taken in season and properly attended to, it is easy, by clipping only the small branches, to regulate the form of the tree and keep the branches clean and free.

Two years since, a young orchard came under my care, which had been very badly treated. The borers were killing the trees, and the owner did not know it. To make the trees bear, he had resorted to trimming, and sawed off valuable main branches. The borer had so reduced the vigor of the tree that the circulation was not driven to the ends of the branches, and a thick brush of thorny sprouts had started up over the body and the principal limbs. Many of the trees seemed ruined. I had them washed with weak lye to kill the lichens and the aphides. The borers were dug out, though it seemed to be cutting the tree into pieces. But now most of the borer scars are healed up, the sprouts are cleaned off, and the ends of the limbs are starting vigorously. It is beginning to be remarked that the trees "look handsome." Only three or four are hopeless. I keep out the borer by putting earth or ashes around the base of the tree—covering up the tender portion of the bark during the spring and summer months, from April to August. Ashes will not kill the borer after the egg has been laid.

I found borers this year in the bark three or four inches below the tops of the ashes. The ashes were put on too late last season. It is better to haul the earth away from the tree in the fall, and permit the bark to harden down to the root; for the insect which lays the egg cannot drive his ovipositor through hard bark. M.

*Wilbraham, July, 1861.*

REMARKS.—Treating trees from their youth as our correspondent does, all the pruning that is necessary—unless it be in case of accident—may be done at almost any time. Still, there is a principle underlying this matter. The tree has different conditions, in different seasons of the year, and some of those conditions are far more favorable for the operation of trimming, than others. The practice of our correspondent is admirable in most of the particulars which he has stated.

#### OUR FARMERS.

Their homes are their castles—their hearthstones a throne;  
They rule without sceptre the kingdom they own;  
The stalks and the vines and the fruit-bearing tree,  
Are subjects that bend not to tyrants the knee;

But bend with the weight of the harvest and field,  
Ever loyal and faithful, a harvest to yield.

No planning and plotting among them is known—  
No traitor the sovereign would strike from his throne.

He stands, 'midst his acres of grass, wheat and maize,  
Like Crusoe, "the monarch of all he surveys;"  
His banks are the earth-banks that stand on his farm;  
The banks that are safe when the panics alarm.

The STOCK is the cattle—not fancy in breed;  
The SHARES are the plow-shares that score for the seed—  
Not quoted on Change is the broker's array;  
But shares on which Nature will dividends pay.

Their banks are not those which the widows condemn;  
No officers pilfer deposits from them;  
If small the potatoes that in them are found,  
Yet none are so small as we find out of ground.

The farmer with appetite ever can eat  
The bread on his table, "as good as the wheat;"  
And, loving most dearly his wife he may utter,  
"My bread and my wife! I'll not have any but her!"

With juice of the apple the wife then may fill  
The glass in which linger no tremors or ill;  
And she may respond that, whatever betide her,  
Most happy she'll be with her husband beside her!

There's many a hearth where the embers are glowing;  
There's many a heart with its joys overflowing;  
The hearths and the hearts from the world's rude alarms,  
Are safe in the homes that are reared on our farms.

MOWING MACHINES.—We recently had an opportunity of trying two leading mowing machines of the day, the *Buckeye* and the *Wood*. We have used them in thin and in heavy grass, and on rough and smooth land, and in every place they have given us great satisfaction. They are both excellent machines. Any person who purchases one, and uses it judiciously, may cut an acre very handsomely in an hour, with a one-horse machine. With a two-horse machine, on level

land, and the long cutter-bar, he may cut an acre in forty minutes. They are well made, not liable to get out of order, and easily managed. A farmer who has twenty or twenty-five tons of hay to cut will not regret having purchased either of these machines. The *Wood* machine is for sale by *Nourse & Co.*, 34 Merchant's Row, and the *Buckeye* by *Parker, Gannett & Osgood*, 57 Blackstone Street.

*For the New England Farmer.*

#### HINTS FOR THE SEASON.

WEEDS.—These are likely to get the start of us during the hurry of the hay season, and the first opportunity should be improved to destroy them. This may be accomplished with the hoe when they are small, if the work is done in a clear, hot day, when the ground is dry; but otherwise, many will escape to seed the land for another crop of "tares," and although it is hard work, every weed remaining alive should be pulled out, and deposited in the hog-yard, not forgetting that those on the border of the field or in the edge of the grass will scatter seed just as surely as though growing in the centre of the field. In this way, a farm may soon be almost entirely cleared of many varieties of weeds, and all so much diminished as to save half the labor of hoeing after a few years. Weeds around barn-yards, &c., &c., will, of course, call for a share of attention.

CANADA THISTLES.—Much is said about cutting thistles before the seed ripens, which advice may be very good in some locations, but is of no practical value here, because there is so much seed ripened in waste places where it is altogether impracticable for a large farmer to attend to it, that there is always enough to come up in any place adapted to its growth. There is no difficulty, however, in eradicating them in pastures, by mowing when the first heads begin to ripen, and if done just before a rain, one mowing will frequently nearly finish them. On cultivated land they can be exterminated by cutting up with a hoe as often as they appear above the ground, in one season.

BASS MATTING.—This very convenient article for tying up plants and small trees, as well as for budding, may be readily obtained by peeling the bark from the bass or linden, in strips of suitable length for use, and keeping it under water until the layers will separate readily from each other. In very still water, the mucilage of the bark is liable to decay and cause an offensive smell, and in streams liable to floods, it is necessary to secure it thoroughly by placing stones upon it, or it may secede.

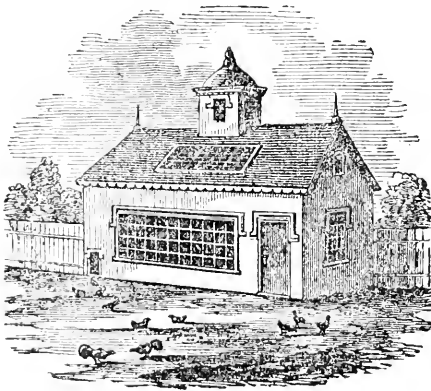
SEEDS.—Those who raise their own garden seeds, can improve the quality of carrot and parsnip seed by cutting off all the small clusters of blossoms, and beets by pinching off the ends of the shoots, as soon as sufficient length is grown, or when all the seed is formed which will ripen before frost; all the strength of the plant will then go to develop the remaining seed, and they will be larger and better filled.

WM. F. BASSETT.

*Ashfield, July 14, 1861.*

## REARING POULTRY.

In a letter from a correspondent, some weeks since, we were requested to give the plan of a cheap and convenient poultry house, and to say something of its necessary surroundings. We reply with pleasure, as we believe the rearing of poultry on the farm is one of its most interesting items to every person of feeling and taste. Children find great pleasure in it, and, in its care, form habits of system, and learn to share the labors and responsibilities of life. Added to this, no item of the farm, where an equal amount is invested, affords so much profit. Then there is the convenience of having the nicest poultry and eggs for the table, just when they are wanted, or the equally high gratification of supplying friends from the surplus.



The plan of a poultry house, which we give above, is simple, and may be very cheaply constructed, as there is but little about it that most farmers cannot supply from their own farms. A small amount for glazing and hardware is all, and the rest is labor and lumber, the latter being the principal item of cost. The lumber may be cut from the farm forest, hauled to the mill, sawed and brought home in the winter, and the shingles may also be conveniently prepared by a great many farmers, with a trifling outlay only of money.

The building should be set but a short distance from the dwelling-house, so that it may be comfortably reached at all seasons of the year; but not so near as to mar the prospect, or disturb the family, in any sense. The internal arrangements may be as we have suggested, or they may be changed to suit the taste of the proprietor; but they should be so contrived as to give the fowls an opportunity to bathe in the sunshine in winter as much as possible. If this is done, they may often be found in groups, in the sunny places, enjoying themselves in the most satisfactory manner. This makes them bright, healthy, and constant layers, when other things are favorable. The roosts should be low, and easily reached, as

well-fed hens, who are usually filled with eggs in different stages of growth, are often injured by getting down from high roosts.

The fowls should always have access, both summer and winter, to dry loam, sand, and wood-ashes, mixed, and to food of some kind, such as wheat, oats, barley, buckwheat, rye, mashed potatoes, mixed with a little lard, scraps of meat, and a feed once or twice a day of dry corn. If the latter is kept constantly before them, they reject the other grains for the corn, are apt to get very fat, and cease laying. In the summer they should always be able to reach the cool, moist earth, by scratching a little, and if they cannot pluck grass or other vegetables for themselves, they should be fed to them. A cheap and easy mode of doing this, is to sow lettuce in any of the spare places in the garden, by the walks, in the corners, or along the outside rows of the corn-field, and when it gets two or three inches above the ground, feed it out. There are few things that fowls are more fond of. They must have vegetables in some form, in order to make them profitable.

A liberal range for the fowls, in a yard where there is shade and pure water, is of great importance. They must also be supplied with lime and gravel in some form. Old mortar, coarse sand, and bones, pounded into small pieces, should be frequently, if not always, before them.

When these things which we have suggested, are supplied, fowls are not discontented in confinement, but will crow and cackle their gratitude, and make the morning joyous with their cheerful music, and we believe will afford a larger profit than when running at large, unless it be on farms where there is a considerable dropping of grain in the fields, or about the buildings.

The house may be large or small, according to one's wants; but one eight feet wide by twelve in length, and eight or ten feet high, will accommodate from 20 to 30 fowls.

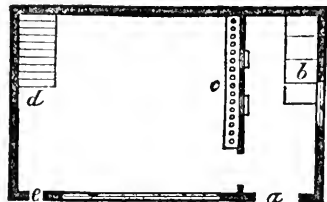


Figure 1, is a perspective view. Figure 2, is the ground plan; *a*, is the door-way; *b*, the grain-chests; *c*, the feeding-boxes; *d*, the stairway to the loft, and *e*, a small opening for the fowls to pass in and out.

**GIVE THE CHILDREN FRESH AIR.**—Some parents make the mistake of keeping their children in doors during cold weather. Such a practice is pernicious in many respects. It enfeebles the

bodies of children, and renders them peculiarly liable to be attacked by colds and coughs. A child should have its feet well shod with socks and boots, its body well wrapped in warm clothing, its head and ears securely protected from the cold, and then let loose to play in the bracing winter air. By this means its body will become robust, and its spirits be kept bright and cheerful; whereas, if a child be shut up in the house, it will become fretful and feverish, and perhaps wind up with an attack of illness. The coroner's inquests in London show that every week, in that city, children are suffocated in bed, or under the shawls of mothers. They die in consequence of inhaling their own breath, which is a compound of carbonic acid gas. They are, in fact, in the same situation as a person who is locked up in a room which is full of the fumes of charcoal. The children are gradually overpowered by the deleterious atmosphere, and die without a struggle, it being thought they were in a sound sleep.—*Scientific American*.

#### DISSOLVING BONES.

We are told from all quarters that bones which are by some means converted into a powder or paste are excellent for nearly all the plants we cultivate. The chemist tells us so, and gives us the reason for his opinion; while the observing farmer, who has used them on his growing crops, leaving a portion of them, side by side, without the bone, assures us that the superior growth and weight of seed where bone dust is applied, is too obvious to leave any room for doubt. It is said, also, that the animals fed upon herbage where bone in some form is applied, are more healthy, grow faster and yield larger products in milk, butter and cheese, than on those farms that have long been cropt without the use of bone.

If such is the case, it is well worth the attention of the farmer to save and secure all the bones he can, and convert them into a fertilizer in one form or another. If he but commences saving, he will be surprised at the amount collected in the course of the year, especially if he have an old horse to compost during the time. In order to make the saving certain, there must be a specific vessel in which to deposit them, such as a barrel or box of sufficient size, which should always stand in some convenient place. When thus collected, the question arises, how they may best be reduced to the form of powder or paste, so that they may be evenly applied to the soil.

In former years we have given the modes practiced to dissolve bones by the use of sulphuric acid, commonly called oil of vitriol. But as the acid is high, and there is some danger of accidents in its use, some other mode is preferable. We have also given a mode of producing the desired result by bedding the bones in horse manure—but that process is a tedious one, and few, we fear, will avail themselves of its use.

In a recent number of the *Country Gentleman*, a writer over the signature of "A. R. A.," introduces a new mode which is at once simple and cheap, and which, if effectual, is a valuable one. It consists in "putting the bones through a process of fermentation." We give it below as he states it, intending to employ it on the bones we have now collected, and will then state to the reader the result—whether favorable or not. He says:—

"To a ton of crushed or ground bones, add two to four cwt. of common salt, and enough of hot water or urine or liquid manure of any kind to wet or dampen thoroughly the whole mass; mix thoroughly, and then cover up the whole heap with dried muck, charcoal dust, sawdust, sods, or common soil. The heap will soon become warm and ferment; and after several weeks will be fit for application in the same way, and in about the same doses, as ordinary superphosphates or bones dissolved by the agency of sulphuric acid. Of bones thus prepared the *North British Agriculturist* says: 'Bones fermented by adding liquid manure or hot water with a portion of salt, are manurally of about equal value, weight for weight, with those treated by sulphuric acid.' As sulphuric acid is, at present, higher in price than formerly, and as there is always liability to accidents and injuries to both the clothing and the body of persons handling this strong acid, the process of dissolving by fermentation is at once more safe and more economical than dissolving by acid."

#### SALT FOR THE THROAT.

In these days when diseases of the throat are so universally prevalent, and so many cases are fatal, we feel it our duty to say a word in behalf of a simple, and what has been with us a most effectual preventive, if not a positive cure, of sore throat. For many years past, indeed, we may say during the whole of a life of more than forty years, we have been subject to sore throat, and more particularly to a dry, hacking cough, which was not only distressing to ourselves, but to our friends and those with whom we were brought into business contact. Last fall we were induced to try what virtue there was in common salt. We commenced by using it three times a day, morning, noon and night. We dissolved a large table-spoonful of pure table salt in about half a tumbler full of cold water. With this we gargled the throat most thoroughly just before meal time. The result has been that during the entire winter we were not only free from the usual coughs and colds to which, as far as our memory extends, we have always been subjected, but the dry, hacking cough has entirely disappeared. We attribute these satisfactory results solely to the use of the salt gargle, and do most cordially recommend a trial of it to those of our readers who are subject to diseases of the throat.

Many persons who have never tried the salt gargle, have the impression that it is unpleasant. Such is not the case. On the contrary it is pleasant, and after a few days' use, no person who loves a clean mouth, and a first-rate sharpener of the appetite, will abandon it.—*Far. and Gard.*

## PRESERVING FRUITS.

Great improvements have of late been made in the art of preserving fruits for family use, by the introduction of jars which can be hermetically sealed. The process of preserving is so simple that every housekeeper can accomplish it, the only secret of success being that the fruit should be put up and sealed when hot, the jars being filled to the brim. The best jars for this purpose are those which are made entirely of glass. These will pay for themselves in a year or two, as fruit which is sealed so as to exclude the air may be preserved with one-quarter the amount of sugar required in the old process, and retains its original flavor better.

The following directions for preserving in hermetically sealed jars will be interesting to housekeepers at the present time :

Select only good fresh fruit or vegetables. Stale and fermented articles can never be preserved nor the decay already commenced arrested. Be particular and know to a certainty that your articles are fresh. No vegetables except tomatoes can be procured in the markets of large cities fresh enough for preserving.

*Blackberries, Raspberries and Strawberries.*—Use from a quarter to a half pound of sugar to a pound of fruit. Sugar the strawberries, and let them stand for half an hour, then put the syrup which will be formed by the juice and sugar into a preserving kettle, and boil it as long as any scum arises, and then put in the strawberries and boil until they are thoroughly heated through.

Fill the jars after first warming them in some way, and close immediately while the contents are hot.

*Cherries and Blackberries.*—Stew with or without sugar ten minutes, and seal up while boiling hot.

*Gooseberries.*—These can be kept by putting them into jars as they come from the bushes and sealing them up. Wash and pick them when wanted.

*Currants.*—Heat to boiling point with sugar, and seal up boiling hot.

*Plums.*—Make a syrup, using about half a pound of sugar to a pound of fruit. Boil the plums in this syrup until the fruit is tender ; then fill the jars, and close up while hot.

*Peaches.*—Pare and cut out the peaches. Make a syrup using from a quarter to an half pound of sugar to a pound of fruit. Boil the syrup five or ten minutes ; then put in the peaches and boil until they are thoroughly heated through ; be sure that the fruit is all well heated, and then fill the jars and close immediately.

*Quinces.*—Peel and quarter them, and boil in water until tender, then do them in the same way as peaches.

*Pears.*—Same as quinces, except that they require less sugar.

*Apples.*—Pare, quarter and boil until tender, but not long enough to break in pieces ; then add as much sugar as will sweeten to the taste, and let the whole boil two or three minutes. While hot pour into jars and close up.

*Tomatoes.*—Take off the skin and boil them one hour, or cook them sufficiently for the table. Season to the taste, fill the jars and close up boiling hot. These being a very juicy article, re-

quire much longer boiling than most other things to boil the water away.

If the above proportion of sugar makes the fruit sweeter than is desirable, it can be kept with rather less, but green fruit requires more than ripe.

*For the New England Farmer.*

## LEGHORN HENS.

Among the great variety of domestic fowls kept for their good laying propensities in the egg line, I think that the Leghorn fowls deserve the highest commendation. For the benefit of the public, I will now give you a little experience of my own. A year ago the fore part of last June, I procured one dozen of eggs of Mr. Levi R. Hewins, of Foxboro', who lived a little more than one and a half miles from the centre of the town towards Walpole. The chickens hatched the last of June, and the pullets commenced laying when 4½ months old, which was in November. They have continued to lay constantly every day since, with the exception of some cold days last winter, they being kept in a place not very warm. They have shown no disposition whatever to set. This makes nearly eight months during which they have continued to lay their eggs.

My Leghorn hens are entirely white. Some of the breed, I find, are of other colors. They are not large fowls, but considerably larger than the Black Spanish, and their flesh is far superior to the latter fowl for their eating qualities. I have been troubled with the propensity in most other fowls of wanting to set, perhaps as often as once a month, summer and winter, which would take a week or ten days to break up so as to have them commence laying again. So strong is their propensity to set that they will set on nothing, expecting, I suppose, to hatch out something.

A writer in the *Farmer* recommends to shut up setting hens in a coop for three days without anything to eat. I have tried it, and think it the best way to deal with them, as when let out at large, their anxiety to obtain something to eat overcome their desire to set any longer. I write this, not for any pecuniary benefit, as I have none of these fowls to sell, but for the purpose of attracting public attention more to the subject.

*Mansfield, July 15, 1861. ISAAC STEARNS.*

## FATTENING SWINE.

Many persons feed their swine sparingly all through their lives until within two or three months of the time of slaughtering, thinking this process an economical one. Is it so? Is it a natural process?

If the farmer's swine are fed at a loss, he had better sell his grain and purchase his pork. But this is never necessary, if he will feed regularly and liberally, and not postpone the fattening process until the animal is old enough to be slaughtered. The rule should be to keep the animal *always* in a thrifty and growing condition, and as the season of cold weather approaches, let the food be of a more concentrated nature, and as



much of it given as will be eaten with a good appetite. Under this process we believe that pork may be profitably raised by paying eighty cents, and perhaps one dollar per bushel, for a considerable portion of the food which the animals are to eat. They must be kept dry and warm in winter, and cool, with a moist place to go to, in summer.

*For the New England Farmer.*

#### REMARKS ON CLIMATE.

MR. EDITOR:—I have been much interested in reading several articles in the *Farmer* within the past year on climate. In the *Farmer* of Dec. 15th, I find an article entitled "Some remarkable facts in relation to climate, compiled from Meyen," in which the writer gives many interesting facts concerning the variations of climate, but does not trace those facts to their primary causes. It is a well known fact that the eastern parts of continents are colder than their western parts in the northern hemisphere, but the result is partially reversed in the southern. All these are the effects of natural causes, and can be philosophically explained, and made clear to the human understanding. The primary cause of differences in climate consists in the configuration of continents, islands and seas. But the cause of all climate lies in two substances which envelop the earth, viz.: air and water, modified by the rays of the sun, the great producer of activity in these elements. It is by a complication of causes, acting upon these two substances, that such an extreme variety of climate is produced. Were the whole surface of our globe level, and of equal color and density, whether it consisted of earth or water, it would present us with a climate uniform in its character, and all isothermal lines would correspond with the parallels of latitude. But this is not so. Our globe is broken, and some parts are thrown up to a great height, while other parts are sunk to corresponding depths, and the ocean levels up nearly two-thirds of the surface of the globe with a vast body of water. Beneath this body of water, the floor of the ocean is as uneven as the land above the ocean, and like it produces a striking effect on climate. To describe this great regulator of climate, with perfect accuracy, requires a geographical knowledge of the whole bottom of the ocean, as well as the land—a knowledge which is but imperceptibly possessed by the human race. Yet the very superficial knowledge which we do possess enables us in a measure to unfold the mysteries of nature to a very great extent, and show their effects on the various parts of the globe.

The rays of the sun, that great motive power of earth, produces currents in the ocean as well as in the air, to an unlimited extent. These oceanic currents have definite bounds, while the surface of the earth remains unchanged, always running in the same courses through the great waste of waters, and forever producing the same effects on the land. These currents are deflected from their regular courses by the continents, and thrown into distant regions of the earth, far from their natural courses. The cause of all these currents in air or ocean lies in the sun. The direct rays

of the sun, on entering our atmosphere vertically at the equator, produce an attraction or expansion of all substances coming within their influence, and permeate all substances with heat, especially at the surface of the earth, consequently making them lighter. For it is a well known fact that heat expands nearly all substances, and by heating the waters of the ocean it gives the atoms a tendency to rise and flow off in the direction of their motive power—the sun. Were there no impediment, this would cause a universal current from east to west, and a rising of the waters at the equator. These waters as they flow westwardly are deflected by the eastern shores of the continents, and sent off towards the polar regions, to modify the climates of the colder parts of the earth. Thus there is a great current that flows around the earth from east to west, which has neither beginning nor end, but is an everlasting circle or motion in the watery element.

Suppose we begin to trace this current from the western shore of Africa. It passes along the equator in a peaceful and undisturbed manner, until it comes in contact with the eastern shore of South America, at a point where its main current is deflected northward, where it passes onward through the Caribbean Sea and enters the Gulf of Mexico. Here is the great heating cauldron of tropical waters, giving life and fertility to the surrounding countries. Here it meets with an impassable barrier to its western progress in the high lands of Mexico. By the rush of waters into this basin they are consequently forced outward, after going the circuit of the gulf, and the only channel for its outlet is between the Florida Reefs and Cuba. It is then deflected northward by that high range of oceanic mountains of which the Bahama Isles are the summits. It now assumes the name of the Gulf Stream, and passes between the United States coast and a range of oceanic mountains, which raise their lofty summits above the waters, and form the Bermuda Isles.

It seems by the Report of the Superintendent of the United States Coast Survey, for 1859, that there is a ridge in the bottom of the ocean, from Cape Florida to Bemini, being a continuation of the mountains forming the Bahama Isles, and extending to the peninsula of Florida, having a depth of 350 fathoms, over which the Gulf Stream passes in its onward course. At this place the bottom shows an unevenness in form, over which, in the deep corrugations, the cold polar current passes beneath the hot waters of the Gulf Stream, and even this cold water is traced as far as the Tortugas; but is everywhere overflowed by the hot waters of the Gulf. At the Sambrero Station, it is strongly marked at depths varying from 70 to 100 fathoms. From Cape Florida, the bottom gradually sinks southwardly to 800 fathoms, five miles off Havana. The Gulf Stream, as it passes to the north, recedes gradually from the coasts, until it is further deflected by the Banks of Newfoundland. East of this, a branch crosses the ocean, and passes down the western coast of Africa, again to join the current of the tropical waters, and perform the same revolution over again. Within the circuit of this current lies the Sargasso Sea—that great floating meadow of seaweeds which so vividly occupied the imagination of Christopher Columbus, before his discovery of

the New World. It appears to be a large tract of oceanic table-land, over which the currents of the ocean never pass. The Gulf Stream, or its main branch, passes up the coast of the British Isles, and the western shore of Norway, giving those countries much more heat than is due to that latitude. It is then deflected by oceanic mountains, which are a continuation of the Ural Mountains through Nova Zembla, into the polar basin. It passes a little east of Spitzbergen, and flows on, mingling its waters with the cold waters of the polar basin, till it passes around the north cape of Greenland, forming the open polar sea, as seen by Dr. Kane's men, then passing through Smith's Sound into Baffin's Bay, it finds its way back, along the shores of the United States, as a cold current between the Gulf Stream and the land; and finally becomes submerged beneath the hot waters of the Gulf Stream. It passes along till it finally loses itself in the hot waters of the Gulf of Mexico. This current has a cooling effect on the eastern shores of our continent, giving New York the mean annual temperature of Dublin, which is nearly 13° further north. These currents have an effect on the climate of both shores of the Atlantic. A small branch of the great tropical current is deflected by the South American continent southward. It passes along the coast, and through the Straits of Magellan, where it turns to the north, drawn again by the sun's rays till it reaches the Bay of Arica, where it is deflected to the north-west until it arrives at the equatorial regions, and assists in forming the great westerly current of the Pacific. A branch of this current is deflected northwardly by high oceanic mountains, which rear their lofty summits above the waters of the ocean, and form that great archipelago of islands known as Polynesia and Australasia. This range of mountains appears to be a continuation of the great mountain chains of Central Asia, sunk beneath the waters of the ocean. This current passes up the eastern shore of Asia, partially enters the sea of Kamtschatka, and a small portion passes through Bhering's Straits into the Arctic Ocean, on the eastern side; yet the main current passes down the western coast of America, giving to California a most salubrious climate. It passes along the coast, until it mingles again with the great tropical current of the Pacific. A southern, or principal branch, of this current passes the Isles of Borneo and Sumatra, and enters the Indian Ocean on its way to the African continent, where it is again deflected from its course, and passes southward to the Cape of Good Hope, and then follows the coast of Africa to mingle with the equatorial current on its passage to the Gulf of Mexico.

A fitful current of cold water, passes from the Arctic Ocean through the west side of Bhering's Strait, down the eastern coast of Asia, to mingle again with the waters of the equatorial current; having an effect similar to the cold current on the eastern shore of America. These currents have an effect on climate by warming or cooling the air, as it comes in contact with the water.

The temperature of climate lies in the air, but is affected by almost all substances with which it comes in contact. Air, by passing over water, accumulates heat, but by passing to a great extent over land, loses its heat. This is one reason that the western coasts in the northern temperate

zone are warmer than the eastern. The air, in passing over the Rocky Mountains and the broad prairies of western America, becomes cool, because it ascends to great heights as it passes over ridge after ridge of the Rocky Mountains, to a great distance; and after leaving the mountain regions it passes over land instead of water, where it cannot accumulate heat, but passes as a cold current to the shores of the Atlantic. The great lakes modify the air to a small extent around them, but have little or no effect as far east as the New England States.

Oceanic currents have an effect on climate, by warming the air as it comes in contact with the water. The air performs similar evolutions to those of the water, but is not so totally impeded in its course by continents or mountain chains, for its elastic force will enable it to pass over mountain chains of immense height; yet there are mountains high enough to impede its progress to a considerable extent. Although it passes over the Andes, Himalayas, and other lofty mountains to a great extent, yet all these mountains have an influence to impede its progress, and turn it from its direct course, which causes great discrepancies in climate.

The natural course of the air is similar to that of the water. The heat of the sun draws the air from each side of the equator, and forms a current from east to west within the tropics, aided by the centrifugal force of the earth. The current, as it recedes from the sun's path, blows from the north of east on the north side, and south of east on the south side, thus rising in a belt at the equator. The upper portion of this air, in consequence of its expansion, will necessarily flow off to the north and south, from the centre of the sun's track, because by becoming colder, and losing its moisture, it acquires more weight, and will come back to earth at some place between the tropics and the poles, or at all places. It forms a westerly current as it passes over our continent from about 33° to about 56° latitude, while on the eastern continent it is driven further north by the southerly winds drawn by the Himalaya mountains from the Indian Ocean. In Asia, this belt extends from 43 to 67° north latitude. This is called, by meteorologists, the belt of westerly winds. North of this, the wind assumes a more northerly direction, until the entire remainder of the air sinks at the pole, forming a northerly wind. This is a general description of the currents of air in the upper regions. In the lower regions, the air is deflected into valleys by mountain chains and other causes, so that the general circulation of the air is not wholly applicable to the earth's surface. But here the air obeys the same laws that water does, and is deflected at times from the equatorial regions toward the poles, till the cold polar current rolls back its tide of chilly winds to the tropical regions.

A FINE HORSE RAKE.—We have been using for a few days, *Stoddard's Self-Operating Horse Rake and Cocker*, and find it to entirely surpass every other Horse Rake that we have used. The rake is a decided success. We hope the inventor will sell ten thousand of them, at a fair price, and have little doubt that he will. A child of six

years has sufficient power to operate it, if he knew how to apply it. At a future time we shall make further notice of it.

### EXTRACTS AND REPLIES.

#### HOW TO BRING MILK FROM A CLOSED TEAT— HAYING—CROPS.

I wish to make a suggestion to your Pennsylvania correspondent. When I was a lad, my father had an excellent cow, and one spring when she had been dry through a cold winter, we found it almost impossible to get any milk from one teat. I think he first worked a fine knitting-needle into the orifice in the teat and afterwards the quill end of a hen's feather, after cutting off most of the feather end, and winding a waxed thread firmly round to prevent it from slipping in too far; by keeping this in a few days except while milking, the difficulty was removed. I had occasion to try the same process last winter, and only had to keep the quill in one night and one day.

We were just going at haying this morning in good earnest, but the weather is wet; still it is a good day for mowing, and as most of us have to use the scythe yet, we have not been idle; grass is good; grain bids fair to be an average crop.

W. I. SIMONDS.

*Roxbury, Vt., July 15, 1861.*

#### SHEEP—PLOWS—CRANBERRIES.

I make the following inquiries, hoping you will answer all of them. I am also very desirous that they be answered by others—farmers of experience. Many who are silent could give much valuable information.

What sheep are most profitable to raise on sandy loam lands in the neighborhood of a good mutton and lamb market? Information in regard to price after shearing, with location, would be acceptable. How many of the kind mentioned will consume the feed of one cow? (1.)

For land as above, what kind and size of plow is the best—a plow to be drawn by oxen or two horses? (2.)

Would such kind of land be benefited by subsoil plowing? (3.)

What is the price of subsoil plows? (4.)

I have a few acres of swale meadow upon which cranberries are scattered here and there. Good English hay once grew upon it, but from neglect the surface drains have become clogged, and now only fresh meadow grass and cranberries grow. I can flow it for cranberries, or drain it and thereby make a valuable meadow. Which would you advise to be done? The sod is black and tough, filled with strong grass roots; underneath is a whitish sand. The land is dry enough in a dry time to plow. It used to bring very heavy grass of good quality. Any suggestions relative to its treatment will be very acceptable. (5.)

I have an abundance of easy land to work, but I think this the strongest, and am determined to reclaim it in some way, so as to make it pay.

*New Bedford, 1861.*

G. W. H.

REMARKS.—(1.) There is no person in our collection better able to give definite and reliable

opinions in this matter than JOHN D. G. WILLIAMS, Esq., of Raynham, Mass. He was a member of our Legislature in 1859, and at the agricultural meetings at the State House, during that winter, spoke upon the subject of sheep culture, and showed that by figures and observation combined, he had gathered much valuable information on this subject. We hope he will reply to the queries of our correspondent.

(2.) Plow number 71½, Nourse, Mason & Co.'s pattern, would be an excellent one for the land you describe.

(3.) Subsoiling such land would undoubtedly be useful.

(4.) Send for a catalogue, which will be sent free of charge, and then you will find, not only prices of implements, but illustrations of them.

(5.) As the cranberry crop, when successfully cultivated, is a very profitable one, we should advise you to plant cranberry vines on one or two square rods of this land, and if they succeed well gradually extend them over the piece. Take thrifty vines from some meadow, and set them in holes prepared in the grass as near as six inches to each other.

It was too late to send the scions called for in another note; but they will be furnished next winter or spring, if wanted.

#### A BIG WORM.

I discovered the curious worm which accompanies this letter, on my grape vine in Charlestown, and as I can find no one who seems to know its name or nature, I submit it to your inspection; perhaps it is the "army-worm" whose recent appearance in New England has been noticed in the daily journals.

WM. L. WILLIAMS.

*Boston, July 20, 1861.*

REMARKS.—The worm you kindly sent us, so nicely boxed, is not the "army worm," nor do we know its name and habits. It evidently belongs to the family of those that feed upon the carrot and parsnip. When the new edition of "Harris' Insects" is out, we hope to be able, by the aid of the engravings, to decide upon the names of many of the insects sent us.

#### CUTTER'S SEEDLING STRAWBERRY.

Will you inform me, through the *Farmer*, in what respect Cutter's Seedling Strawberry is superior to older varieties? Also, if Longworth's Prolific would be as well as Early Scarlet, to plant with Hovey's Seedling, and if it is better to cultivate in hills, instead of beds?

S. E. C.

*Worcester, July, 1861.*

REMARKS.—We did not mean to say that Cutter's Seedling is better than older varieties. We told what we knew of the Seedling, purposely leaving comparisons to yourself and others. We cannot answer your second question.

## A HORSE BOUGHT AND A LAWYER SOLD.

BY A COUNSELLOR AT LAW.

I had a wife and three small children. My office was in Boston, and we lived in an adjoining town. I needed the exercise of riding, and a drive now and then, toward evening, with my family, would be good for us all. We had formerly lived in the country, where everybody keeps horses, and a horse seemed really necessary to our comfort, and so I determined to buy one. I had owned several horses in my day, and knew something of horse-flesh, and I had been engaged in several horse-cases in court; and of course I knew, as every man of observation knows, that horses are a dangerous commodity to deal in. Being, however, forewarned, of course I was forearmed, and being a lawyer, I felt no apprehension that I could not look pretty well after one side of a bargain.

Before trying to buy an article, I always make up my mind exactly what I want. Then I am not misled by every foolish fancy, as one is liable to be who looks through the market for something that suits him.

The horse I would buy must be a good saddle-horse, a pacer or ambler under the saddle, but of course a square trotter in harness. He must be young and sound, of handsome, sprightly figure, kind as a kitten, never needing the whip, but yet safe for my wife to drive, not afraid of the engine, fast or slow, at the driver's election. To be sure, I had once heard our minister, when I lived in the country, tell the only horse jockey in the parish that he wanted just such a horse, and I had heard the jockey's irreverent reply, "Why, you—old fool, there *aint* no such hoss." Yet I had heard of such animals, and seen them advertised, and if I had not happened to see one that exactly answered the description, it was probably because I had not been looking particularly after him.

When it became known that I was in want of a horse, it was really amusing to see the attempts made to deceive me. They evidently thought I was a green hand at the business, and that I was a fit subject for any imposition.

One fine-looking animal was brought me, that, to a careless observer, would have seemed nearly perfect. He had a slight cough, but the owner assured me it was nothing only a little cold the horse had taken the day before, by standing in a draught. He could not deceive me; I had owned a horse with the *heaves*, years ago, and advised him to take his worthless beast to somebody who did not know so much about horses. Another would have suited me exactly, but he had several scars on his legs, caused, as the dealer said, by breaking through the stable floor. I inquired a little, and ascertained that he had taken fright, upset the carriage, and gone home, two miles, on a dead run, with the forward wheels, into his stall, carrying with him a hay-cutter and a grindstone, that stood in the floor, and so had cut himself to pieces trying to kick away the fragments.

Another had an interfering strap on his ankle, having lately been badly shod. I saw through that poor falsehood at once.

I think I should have bought one of a dealer whom I knew, and who assured me he would not for the world deceive me, had not the singular

animal exhibited the unfortunate eccentricity of standing on his fore legs exclusively at intervals, when I attempted to ride him outward from the stable, owing, probably, to a defective nervous organization.

I determined to have no more to do with dealers, but to keep a sharp lookout for myself, and when I found the right kind of an animal to buy him, even if I had to pay a high price.

Walking one afternoon from Cambridge to Somerville, I rested a moment by the hawthorn hedge at the foot of Kirkland Street, and looking back I observed a beautiful black horse, surmounted by an elderly cadaverous gentleman, who had somewhat the air of a clergyman. The horse was moving at an easy ambling pace, scarcely faster than a walk, the rein hanging loosely on his neck, while the rider was serenely reading a newspaper. In the language of the free-love woman to "Artemus Ward at Berlin Hites," I mentally exclaimed, "I have found him at last." I accosted the traveller, and passing by the details of our conversation, it is sufficient to say that the animal was everything that could be desired, and although it would well nigh break the hearts of the owner's family to part with him, he could be bought for the moderate sum of two hundred and fifty dollars.

It may be interesting to the reader, although somewhat premature, to learn what I afterwards discovered, that the owner's "family" consisted of one bull-terrier pup which slept with him in a stable loft every night.

I met the owner by appointment next day, at my office in Boston. He had been employed, he said, as travelling agent of a Boston house, and had no further use for the horse: he would give me a written warranty of the animal as perfectly sound and kind; indeed I might take him home a week, and try him, and see for myself. Nothing could be fairer than this. I took my prize to my own stable, I kept him a full week, I rode him and drove him daily; my wife rode him and drove him; my man Barney rode him and drove him. My admiration of him increased. He was to all appearance sound and kind. He was fast or slow, as I chose to have him. He would face the cars without winking, and stand without tying. In short he was a perfect horse. At the end of the week I paid the price, took a written warranty, and went home rejoicing in my success. Every horse should have a name, and we concluded to call this one, on account of his many good qualities, *Honesty*. For a few days I was engaged constantly in a long trial in court. The horse stood still in his stable, well fed and well groomed, so as to be in the best condition for use when my leisure days should come. Barney said one day that he had harnessed *Honesty* to the wagon to bring home some oats from the store, and that he refused for some time to start from the yard. However, Barney was no horseman, and I thought the fault was in his awkwardness in handling the reins. A day or two later, my wife's brother took her with the children out for a drive with *Honesty*, in the carryall, and she reported that the animal insisted on going up Beacon Street instead of Tremont Street, where they wanted to go. This did not seem exactly right, but still I had full faith that *Honesty* would prove all right when I held the reins.

Finally, my trial in Court was finished, and there was to be a pic-nic near Fresh Pond, where all my friends were going. I had bought a new light top buggy, and harness to match, and wife and I drove up. Honesty was in high feather, and made the new carriage spin along like a linen wheel. We passed the afternoon in the woods, and when our team was brought up for our return, everybody was attracted by our elegant turn out. I confess I felt not a little pleased with this universal appreciation of my taste. I don't know why it is, but everybody considers a compliment to his horse as fully equivalent to one to himself. We bade adieu to our admiring friends; I handed my wife into the carriage, gathered up the ribbons and waved my hand by way of parting salutation. Honesty pawed, but did not move forward. I chirruped and shook the reins. Honesty shook his head, and gave a significant snort. A friend took him by the bit, when he stepped rapidly backward, till the new buggy brought up against a tree. I touched him with the whip, when he reared and snorted, and my wife screamed. "Don't whip him," cried a friend; "whipping never does any good to a contrary horse." "He is an old offender, I see by his actions," said another.

The details of this exhibition are not agreeable to dwell upon. Neither coaxing, nor whipping, nor pushing, nor things present, nor things to come, nor any other creature, could induce that beast to even draw the empty carriage out of its tracks. I asked a friend to take my wife home, and leaving my elegant carriage, ignominiously led the obstinate brute to a stable near by, and left him for the night.

"A sadder and a wiser man I woke the morrow morn." I persevered with Honesty yet awhile, but after being kept two hours by his stopping in a rainy night on Cambridge bridge, on one occasion, and being obliged to leave him in the stable yard, when in great haste to meet an engagement at Lexington, I reluctantly concluded that he was not perfectly kind. My wife had long since declined further experiments with him. I was puzzled whether to admit myself duped and cheated, or attempt to cure the defect. I rode the beast occasionally, and sometimes drove him, with various success. One day I had business at Concord, at the County Court, and with a friend drove into that beautiful village just at sunset. Court had just adjourned for the day, and my brother lawyers and clients, and jurors and witnesses were lounging about the hotel and the old elm on the common. Just as we came in front of the Middlesex hotel, I observed my horse suddenly to falter; then he stopped, throwing up his head, and jerking it sideways in a manner remarkable to see, seemed quite bewildered. "He has a fit;" "jump out or you will get hurt," cried the multitude, which at once surrounded us.

My friend obeyed the call, and I attempted to do so, just as the distracted beast sallied backward over the shaft, "and Mortham, steed and rider fell." Down we came in one miscellaneous heap, the carriage essentially smashed, and his owner vexed and discomfited. A few days proved that Honesty was subject to frequent attacks of this kind.

But had I not a warranty, and am I not a lawyer? Straightway I commenced an action for deceit. It is a proverb at the bar, that a lawyer

who tries his own case has a fool for his client. I retained and paid counsel. I summoned and paid witnesses; I consulted and paid Doctor Dadd and other experts. The case was tried, and all Middlesex county was made to understand how a lawyer had been cheated by a jockey. The jury rendered a verdict in my favor for \$125 damages, probably upon the idea that a lawyer ought not to recover more than half that he is cheated out of. I gave my execution to an officer, with orders to arrest the rascal, and told my counsel to oppose him at every step and follow him to the end of the law.

After a few months, my attorney sent for me, and gave me the result of following my directions. The defendant had been committed to jail where he had quietly remained several weeks, apparently happy in the consciousness that by the beneficent provisions of our laws, I, his creditor, was paying \$1.75 per week for his board. Then he had given notice of his intention to avail himself of a further beneficent provision of our statutes by taking the poor debtor's oath. My counsel had faithfully obeyed instructions and opposed him there, paying for me, according to law, two dollars per day to the Commissioner, while the examination was pending. Finally the vagabond had succeeded in swearing out, and my various bills amounted to about the amount I had first paid, \$250.

The enemy was free, but I was not. I still had that "dreadful horse," worse than Mr. Pickwick's that nobody would take away. A neighboring horse dealer offered me \$50, and I sold him and took his note for the amount. A few days after, I asked him what he had done with him. He said he had advertised him to sell at a horse sale in the city. I had a rational curiosity to see the advertisement, and asked him to show it to me, which he did, and it ran as follows:—"Black Saddle Horse. A particularly fine black saddle horse, perfectly sound and kind in all respects and free from tricks."

I don't know how much he got for his fine saddle horse. I only know that I still hold his worthless note for fifty dollars.—*American Stock Journal.*

*For the New England Farmer.*

#### CROPS---PRECISE STATEMENT WANTED.

Will your correspondent, Mr. N. Hitchcock, who has presented in the columns of your paper a statement of his grain crops for the last year, confer a further obligation by informing the readers of your paper, the number of days' work, man and beast, performed on the three lots, sixteen acres in all. It strikes me that he has put his figures too low, and not too high, as he feared. His land must be good and be well tilled to produce, after paying interest on its value at \$68 per acre, an averaged profit of over thirteen dollars per acre, or about twenty per cent. I notice, also, that he credits his corn crop with one-third of the manure, while he charged in the first instance to cost, and I do not perceive from the inspection of either the oat or rye crop, any charge for the manure carried forward from any crop of the previous year, thus showing that to be his regular practice. These are important points to be observed. No greater benefactor to the agricul-

tourist can be found, than he who will furnish data by which the cost of raising crops can be ascertained, and I would suggest to Mr. Hitchcock, that his figures, to be of any value in this respect, must be expressed, not in dollars and cents, but in days' work, weights and quantities. I have no means of going and doing likewise from reading the fact that he applied manure costing fifty-three dollars to his acre of corn. I want to know the number of cords and the kind of manure employed. I should likewise feel grateful for any information as to the expense in labor, not in dollars, of harvesting six acres of corn, now represented by two items, cutting stalks and picking corn, charged at twenty-four dollars; if nothing more, I should be glad to see this sum apportioned among the items—bundling 1088 stalks, 664 bundles of corn fodder, husking 256 bushels of corn, taking up and cleaning 10 bushels of roots, getting in 4 loads of pumpkins, harvesting and shelling half a bushel of beans, all of which came from the corn-field. When we can approximate more closely than we now do to the labor required for all these operations, we shall be on the right road to agricultural success. F.

*For the New England Farmer.*

#### RETROSPECTIVE NOTES.

**CAUTION IN PURCHASING SEEDS OR IMPLEMENTS NECESSARY.**—The readers of the *N. E. Farmer* could hardly fail to notice the very excellent article with the above caption in the weekly of May 11th, and in the monthly of June. It certainly seems scarcely possible that men of ordinary discernment, and of honest and good hearts, could fail to recognize in said article, abundant evidences of a superior grade or amount of the same intellectual and moral qualities; for what but an honest and good heart, or a large amount of benevolence and public spirit, could have prompted the writer to take the trouble of penning that article, while perfectly aware, as he undoubtedly was, that it would expose him to the ill will, maledictions, and perhaps, revengeful feelings of the knaves and impostors against whose tricks and traps it was his wish to caution and protect his unsuspecting brethren? Then, too, what but a superior degree of intelligence and penetration could have enabled the writer to succeed so well in the accomplishment of his very benevolent and public-spirited purpose? For these qualities, so manifest in this article, Mr. BASSETT must surely have secured, not only the admiration, but also the grateful appreciation of hundreds of the readers of his communication. Such, at least, were the sentiments called forth towards Mr. BASSETT in the breast of one who knows nothing of Mr. B. save through the columns of the *Farmer*, and who, from the many hundreds of miles between them, is never likely to know him—who, in a word, can be influenced by no personal or local partiality, but only by considerations in which all the readers of the *Farmer* may equally participate.

But our purpose in taking pen in hand on this occasion, was, not so much to give some expression to the sentiments of admiration, gratitude, and high appreciation to which Mr. B. has so fully established an unquestionable right and ti-

tle from his agricultural brethren—not so much to give an expression to such sentiments, as to make an effort to impress more deeply upon the minds of farmers the necessity for an ever-increasing watchfulness against the impositions and frauds of the advertisers and venders of new things in their line, inasmuch as the number and the cuteness of these impostors seem to be continually on the increase.

The necessity of wide-awake watchfulness on the part of farmers, and the value, moral, as well as pecuniary, of such cautions and suggestions as those contained in Mr. BASSETT'S article, will appear quite manifest, we think, to those who will give due attention to such considerations as the following:

1. The number of attempts at frauds upon farmers, has, of late years, been continually on the increase. Those who have specially noticed the advertisements in agricultural and other papers supposed to be largely circulated among this class, must be well aware of this fact, namely, that attempted frauds on farmers are continually on the increase; and those who have not given any special attention to such attempts would require, for their being fully convinced of the fact, only to see a moderate collection of deceptive advertisements, and to hear of the sales of worthless articles by peddlers and others, nowhere so extensively, perhaps, as at Fairs and Exhibitions, where the hurry and excitement of the scene tend to prevent due carefulness and caution.

2. These attempts at frauds upon farmers are increasing, not only in number, but also in ingenuity, cuteness, and cunning craftiness lying in wait to deceive. This is a reason of much force for wide-awake watchfulness, and for gratitude to those who expose such trickery, or caution us against it.

3. Farmers cannot rely for protection against the impositions and frauds attempted to be practiced upon them, either upon the publishers or the editors of agricultural papers, and far less upon those in the same relations to the common newspaper press. Of the reasons why such protection need not be looked for from either of the sources just named, we will speak immediately; but taking our proposition as a fact, and waiving all question as to the fact being right or wrong, it is evident that when farmers cannot rely for protection upon those to whom they most naturally look for it, they must the more entirely depend upon their own penetration and good judgment, with the aid of such hints, rules, or suggestions as may be furnished to them by those of their fraternity whose eagle-eyed discernment and whose public spirit or benevolence are more or less like those so notably evinced by Mr. BASSETT.

Some of our farming fraternity having large conscientiousness, or a more lofty tone and standard of morality than is usual, or having suffered loss and vexation from having become the dupes of some cunning sharper whose advertisements had been admitted into a paper enjoying their implicit, unsuspecting confidence, have insisted upon it as due at once to morality and to the patrons of their papers, that publishers of newspapers, and still more of agricultural papers, should rigidly exclude from their columns all advertisements in regard to which they had not good as-

surance that they were perfectly free from all intention or tendency to deceive and defraud the unwary. But to comply with this requirement, so far at least as to demand, from all who might offer advertisements for insertion, a good and sufficient guarantee of their perfect freedom from any intention to deceive or defraud, and even from any tendency in that direction, would impose upon publishers a very delicate, disagreeable, and difficult task—one, indeed, which would be often quite impracticable. Accordingly it has come to be generally understood and mutually assented to between readers and publishers, that while all advertisements of an indecent character, and all which are obviously intended merely to enable knaves to fleece and rob the unwary, are to be strictly excluded, there may nevertheless be admitted a large class, in regard to the good faith or honorable intentions of those offering which, no guarantee can be obtained. There are a great many advertisements which, though of a quite dubious character, there might be no impropriety in inserting, provided the publishers have no opportunities for judging of them and determining their true character and purpose superior to those which their readers have, or may readily put themselves in possession of, and provided also that the publishers have distinctly announced to their readers, or are sure that their readers understand, that the insertion of any advertisement in their columns does not imply that they have implicit confidence in its freedom from fraudulent intent, or that they are giving any sanction to its pretensions by the mere insertion of it.

But time and space forbid farther details. This we regret, as some of our remarks may be misunderstood without further explanation, as they would be, certainly, if it were supposed that we intend to cast any reflections upon our publishers. On the contrary, we would rather praise them, for none of them have published such a notable advertisement, or any so evidently intended to rob the farmers, as that of the Japan Wheat schemers. Our main aim has been to impress upon the farmers the need of great caution in dealing with certain advertisers of seeds, trees, implements, manures, cattle-food, &c., and the importance of exercising their own judgment and a wide-awake watchfulness, instead of depending upon others. As helps to such self-protection, the readers of the *Farmer* ought to be duly sensible of their obligations to Mr. BASSETT for his excellent suggestions.

MORE ANON.

#### MORTALITY FROM DRINKING BEER.

A Washington correspondent of the *Baltimore Clipper* thus accounts for the sickness prevailing in some of the New York regiments:

The proportion of deaths in one or two of the New York regiments is far beyond what is reasonable, or in the nature of things necessary. The Albany regiment suffers heavily. Intemperance is the chief, if not the only cause of this. I learn that whilst whisky is disallowed the men, they are permitted to indulge in malt liquors, and especially lager beer, to their utmost will, under the very mistaken impression that such drinks are not injurious. In very warm weather, malt liquors are far more dangerous than alcoholic ones, by reason of their rapid generation of acidity in the

stomach, and thereby causing choleric symptoms of varied character.

A striking instance of the ill effects of malt liquors in very warm weather, was furnished in the town of Newark, Ohio, in the latter part of the very hot and dry weather of 1854. Within the short space of thirty-six hours, from thirty to forty persons died of what was called cholera. At first the faculty and the public were stunned at this mortality, but a little investigation showed that in every instance, the disease was caused by beer drinking. In several instances, the victims resorted to beer to quench the thirst of fever. It is believed that every one who did so, perished. The only drinks for some time allowed by the authorities of the town were alcoholic, and as a good price was charged for them, the chance was that they were better than usual.

*For the New England Farmer.*

#### DOES DRAINAGE INJURE LAND BY LEACHING?

BY JUDGE FRENCH.

It is a frequent objection to thorough draining, that it must carry off the salts of the manure applied to the soil, and the natural elements of fertility which it contains.

This objection is heard only from those who have not had faith or enterprise enough to attempt any experiments, because, although it rests on some basis of truth, it is insignificant, when compared with the advantages of drainage.

Without entering upon the discussion of the vexed question, whether manures are lost more by evaporation or by sinking, it is doubtless true, that those parts of manure usually termed salts have a downward tendency, and pass to some extent through the soil.

Common salt applied to land in sufficient quantities to destroy all ordinary vegetation sinks out of the way in about three years so as to produce no visible effect. We know that salt is not evaporated, because it is readily made by the evaporation of salt water, the water passing off into the air, and leaving the salt into the pans.

Some of the non-volatile portions of manure are taken up by our crops in their growth, some are seized upon by new chemical affinities in the soil, and some no doubt sink below the reach of roots, and pass off in the natural or artificial drainage of the field.

All productive lands are drained either by nature or art. The water which falls on them must escape by some means, and evaporation cannot carry away half of it. If it do not escape, it is stagnant in the soil, and destroys all valuable vegetation. We see, then, that this objection is too broad, and applies as well to our high, dry lands, where the water line in summer is ten or twenty feet below the surface, as to land drained by art to the depth of four feet.

We know that the passage of water through soil of any kind, to some extent, filters the water and tends to purify it, or in other words the soil takes from the water its elements of fertility. A great advantage of draining is to get from the water the valuable substances which it holds in solution. Some of these exist in rain water when it strikes the earth, and when it falls on well manured land, it dissolves and takes in still more of them. If the water thus saturated with the elements of fertility, runs off of the surface, or runs away in shallow drains, it must carry with it the very substances essential to the growth of our crops. The object, then, should be, to free the soil of stagnant water, and to do it in the manner best calculated to extract from the water its valuable properties. This is to be accomplished by filtering the water through as great a depth of earth as is convenient, within reach of the roots of our crops, and sending it away pure from our field.

With these principles in view, it is interesting to inquire as to the effect of different soils in filtering water.

Careful investigations of this subject have been made with various objects, as well to ascertain the value of drainage water for irrigation, and for the use of cattle and for domestic purposes, as with reference to the proper depth of drains.

In the Report of the General Board of Health of the City of London, we find the recorded opinions of the best agriculturists in England and Scotland upon this point.

Mr. SMITH, the father of the Deanston system, says:

"The water flowing from drains is generally very limpid and pure, although at times, when much manure has been recently put upon the land, it is impregnated to a considerable degree with soluble matter, and sometimes coloring. It is, nevertheless, usually fit for domestic purposes, and is much prized where there are but few springs, and where the people, previous to the introduction of thorough draining, had to bring the water for domestic purposes from a distance, by carts, at great expense. They now form wells to retain a supply of the drainage-water for the dry seasons, by which their health and comfort have been greatly promoted. The cattle are also supplied with wholesome water in the summer."

Mr. PARKES, whose name carries weight on all subjects connected with drainage, says:

"The results of my experience tend to show that the water issuing from deep under-drains in land is generally soft, that it is relished for drinking by stock, and approved for household and washing uses in villages and hamlets, where I have had to conduct water from the drainage of land to serve those purposes. The water derived from a shallow system of drainage is often troubled after rain or after the plowing up of fields, and is offensive to the taste and smell after the manuring of lands. The water of deep drainage is generally perfectly pellucid, and I should consider a drainage to be imperfect, if sand or earthy matter were carried off from the soil by drains."

The following testimony in favor of deep

drainage, by ALEXANDER MACCAW, Esq., is from the same source:

"An instance of the analysis of drainage-water is recorded in the 'Rural Cyclopaedia,' edited by the Rev John Wilson, under the article 'Manures.'

The depth of drains are not mentioned, but it may be concluded that they were shallow, probably not more than two feet, the deeper system not then being introduced.

Three analyses were taken from three specimens of drainage-water caught from the discharge of subsoil drains of a farm in East Lothian.

- 1st. After the drains had been dry for many weeks in November, 1844;
- 2d. On 29th April; and
- 3d. On 16th May, 1845, when the land had been sown with a grain crop after a winter fallow; the manure applied to the crop was guano.

The result shows the quantity of salts and of vegetable and animal products found in the water to be a very serious affair in respect to the extraction of their valuable fertilizing matters, while their retention in the water rendered it unfit for domestic purposes. In another analysis taken at the same time of the turbid water from the surface of the same land, the results appear to have been little different from those of the water from the subsoil drains.

I have no doubt that by the process of thorough deep drainage a considerable portion of valuable fertilizing matters may be extracted with water from the lands, but not a tithe of what would be carried off by water from the same soil previous to drainage."

EDWARD SCOTT, Esq., gives the following as the result of his observations:

"Water that flows from deep drains is more pure and clear than that from shallow drains. Water from shallow drains frequently carries away the salts, vegetable and animal products, contained in the manure applied to land, which is very apparent where good farm-yard manure has been laid on fallow, and heavy rains follow immediately after."

It is ascertained that neither rain water nor the water of streams or rivers, nor the water of deep springs or wells, is ever found entirely pure. Its impurity results from its power of holding in solution many substances, of washing them out of the soil and plants, and even out of rocks. Various means have been adopted to filter the water of streams for domestic uses. The water of the Seine is extensively used after a process of this kind, for such purposes, in Paris.

Of soils, open gravel and sand have probably the least power of divesting water of its impurity. Clay, both because of the closeness of its structure, and because of its chemical affinities for substances usually held in solution by rain water, or washed out of manured land, passes the water in a purer state.

It is obviously of no consequence to the farmer what becomes of his manure after it has sunk beyond the reach of the roots of his crops, whether it goes down to the centre of the earth, or runs away in drains. It is important, however, to arrest it, at any depth, where it may be rendered available. Mr. Mechi, of Tiptree Hall, England, says that, irrigating his land with liquid manures, he has frequently caused the drains at five feet in strong clays to discharge the colored liquid! This shows that he wastefully applied his manure,



whatever else it may prove. The quantity of manure usually applied, in the best cultivation, could produce no such effect in any soil, at four feet depth.

We conclude, on the whole, as to the objection that drains tend to injure land by leaching out the manures, that any loss in this way is far more than compensated by the prevention of surface washing, and that the loss is much less in deep than in shallow drainage.

EXTRACTS AND REPLIES.

THE BUCKEYE MOWER.

In speaking of Mr. Ayer's experiment with a Buckeye mower, you mention two acres, where it should have been *ten*. The noticeable point of my communication was that an acre of grass, yielding *two tons* of hay, was cut with this mower in *forty minutes*, and that the entire field of ten acres, yielding twenty tons of hay, was cut with only *seven hours' labor* of one man and two horses.

Mentioning this experiment to Major Allen, who owns a farm adjoining Mr. Ayer's, on which he cuts forty tons of hay annually, he said it was better economy to use a scythe—when laborers could be employed for *a dollar and a quarter a day*—as he had hired them the present season.

Now let us compare the expense of these modes of cutting grass:

1—BY THE MACHINE.

|  |        |
|--|--------|
| Costing \$100, say at \$2 per day..... | \$2.00 |
| Two horses, at \$1 each.....           | 2.00   |
| One man.....                           | 2.00   |
| Entire expense of cutting 20 tons..... | \$6.00 |

2—BY THE SCYTHE.

|   |         |
|---|---------|
| Supposing the man to cut 2 tons per day.        |         |
| Labor of the man 10 days, at \$1.25 per day.... | \$12.50 |
| Cost of scythe and snathe.....                  | 2.00    |
| Grinding and fitting, 30 cents per day.....     | 3.00    |
| Incidentals.....                                | 50      |
|   | \$18.00 |

In the one case, the cost of cutting will be \$6; in the other \$18—three times as much. How do these items accord with your notions?

July 20, 1861. J. W. P.

REMARKS.—Pretty much as it would to see a man set his family—who had enough else to do—to spinning cotton and then weaving it into cloth. We have no doubt, from our own use of the machine, but that the Buckeye will handsomely cut an acre in 40 minutes, all day long, where there are two tons of grass per acre.

CORN AND SPECIFIC MANURES.

In reply to a Newton, N. H., correspondent, whose corn did not come up, we will say that he probably applied too much superphosphate to the hill. A good sized table-spoonful is enough when planting, and another at second hoeing. We have a field of between three and four acres, managed very much as he describes his process, and it is shoulder high, and as rank as a vigorous alder swamp. Come and see it, friend T.

TRIAL OF MOWERS AT SOUTH VERNON.

We publish for the benefit of the farmers in this vicinity, the draft of several different mowers, as tested by dynamometer at a trial at South Vernon, last week. There were eleven machines entered, among which are noted the draft of the following:

|                                   |    |           |             |
|-----------------------------------|----|-----------|-------------|
| Gore's Bay State, formerly called |    |           |             |
| New England.....                  | 4  | feet cut, | 240 pounds. |
| Newhall's Winchester.....         | 3½ | " "       | 162 "       |
| Pony, Allen's Patent.....         | 4  | " "       | 225 "       |
| Wood's.....                       | 3½ | " "       | 200 "       |
| Buckeye.....                      | 4  | " "       | 250 "       |
| Hubbard.....                      | 4  | " "       | 225 "       |
| Manny's.....                      | 4  | " "       | 240 "       |

The Pony was worked with one horse that weighed 830 pounds, and mowed one-fourth of an acre in 22 minutes in the forenoon, and same amount in 17 minutes in afternoon, finishing first.

REMARKS.—A fair trial of mowing machines requires that they should all move at the same moment. Thirty minutes' difference will sometimes make several pounds' difference in the draft. For instance: put a machine into a heavy piece of grass at 8 o'clock in the morning, when there has been a heavy shower the previous night; then put in 30 minutes later and the draft required will be found materially less than on the first trial.

KEEPING HENS.

My stock consists of eight hens and a cock; they are the common dung-hill fowl, so near as I can tell, at least they are nothing more than "common" hens. My method is this: they are confined in a barn cellar where the manure from a horse is deposited in the summer, and the addition of that of a cow in winter. The wall is pointed so as to render the cellar as warm as possible. So I have no expense in building a house for them. Buckwheat is the chief food they have. I consider it the best thing they can eat. Also, oatmeal is very good for a change, and they will not thrive so well when fed on one thing the year round. I am never at the trouble of getting meat for them, simply because they lay well without it. *Claremont, N. H., July, 1861.* C. F. H.

WARTS ON A HORSE.

Being a reader of the *Farmer*, and having noticed that through the medium of its valuable columns you are willing to impart useful knowledge to all its perusers, I would thank you, or some correspondent, to give a recipe for a safe and efficacious remedy for removing warts from the flesh of a horse. *Waltham, July 22, 1861.* ALDEN JAMESON.

REMARKS.—In the *Horse-Owner's Guide*, a book which every horse-owner should own, we find the following remedies prescribed: If hard and dry, dulcamara, sulphur; with formation of boils, arsenicum; bloody and painful ones, causticum; if humid, thuja, sepra; small, in great numbers on the lips, calcaris—carbonica. Under another mode of treatment, if the warts are sin-

gle, with pedicles, they may be under-bound with waxed silk thread. Large warts may be cut out with the knife, and the root fired.

#### RUSHES AND TURNIPS.

1. Can rushes be killed out and kept out of reclaimed swamp land, without its "costing more than it comes to?" If so, how? Will bending down and burying them alive and whole, destroy them?

2. What is the best method of pulling out cedar stumps, 6 to 10 inches in diameter, on land hardly firm enough to bear up an ox team?

Perhaps plowing and draining may be the only remedies for rushes. I have just mowed a piece, nicely plowed some four years since; some parts are yet good; in other parts, nine-tenths are rushes. A narrow strip (in the vicinity of a dead furrow, where water stood for weeks in spring,) was covered with gravel two years ago, sown with grass seed, and is, as yet, comparatively free from rushes. E.

*South Framingham, July 24, 1861.*

REMARKS.—We do not know about the rushes. The stumps may readily be pulled with *Willis' Stump Puller*, as the machine and team may stand on the firm ground, and the chains extended over the soft swamp to the stumps.

#### TRIAL OF MOWERS.

MESSRS. EDITORS:—As there seems to be considerable interest in the merits of some of the different mowing machines, I send you the inclosed report of the relative power required to move the different mowers in the same grass.

The Pony is a *new machine* with two driving wheels and folding-bar. Having used the two-horse two years, and the one-horse the present season, I am astonished to find that it did not draw lighter. I have noticed at several trials the draft varied from 125 to 150 pounds only.

CHARLES I. PARSONS.

*Northampton, July 16, 1861.*

#### A GREAT RYE CROP.

In July, 1859, I had land in grass that gave a very light crop. It was plowed as the grass was taken from it. About the middle of September it was again plowed, and subsoiled, manured, harrowed and sowed with one bushel of rye to the acre. Grass seed was also put upon it. In July last it was harvested, and was, in February last, thrashed by hand. The product was 91 bushels of rye from 2 acres and 12 rods of ground. The straw from one shock was weighed, and, by tale, there are over 9400 pounds of straw. N. B. W.

*New York, July, 1861.*

#### A COW WITH THE CRAMP.

Can you or any of your correspondents tell what to do for cramp in cattle? I have a valuable cow that has it severely at times. It takes her in an instant, and entirely disables her. As she was going from the cellar to the barn, it took her in one hind leg and she fell down stairs. Last night, when my cows came up, she was missing; on searching she was found half a mile from

home, with no use of one leg, and had to be left over night. She generally gets over it in about twelve hours, but is liable to be taken at any time, without a moment's warning.

*New Worcester, July, 1861.* H. Y. GATES.

#### CROPS IN N. H.

The prospect of crops here is good; corn, though a little later than some years, hardly ever was better. Grass is first-rate, and with a fair season to get it secured, hay must be abundant and good. The fruit crop, however, is very nearly a failure—there are no cherries, no plums, and I think very few apples. All other farm crops promise well.

SIMEON HEYWOOD.

*Claremont, N. H., July, 1861.*

#### "GREAT WOOL AND LITTLE CRY."

Mr. J. H. PETERS, of this place, sheared from six two-year old ewes, 61½ pounds clean wool; from five yearling ewes 48½ pounds, and from a two-year old buck, an eleven months fleece of 21½ pounds wool! Also, from a fifteen year old ewe 8 lbs. 15 oz., said ewe having raised a smart lamb. Mr. Peters' sheep are of the full blood Spanish Merino, and he is meeting with well-deserved success in his efforts to improve his flocks, his buck lambs being eagerly sought for in this section. VERMONT.

*Bradford, Vt., July, 1861.*

*For the New England Farmer.*

#### THE THRUSHES.

I have read with interest the articles in the *Farmer* relating to the birds of New England; the author shows himself to be well acquainted with his subject. In reading the article in relation to the Thrushes, I could not resist the inclination to write out some of my thoughts on the subject. There are, no doubt, many erroneous ideas in relation to these birds, and "J. A. A." has yet to learn some things about them, I think. There are four species in New England that very much resemble each other, and perhaps more. There is the *Hermit Thrush*, *Wilson's Thrush*, the *Olive Back Thrush* that we have in central Vermont; the *Wood Thrush* I have never seen here. The *Hermit* frequents all our woods, and though rather shy, does not prefer the deepest and thickest forests, but is often seen in open land and pastures. His song is superior to any other bird of the woods. It is a given point, as far as my observations go among the lovers of bird music, that no other bird has so sweet a strain. There is a continued variation at every pouring forth; say first a low, rich strain, rising higher and higher till it arrives at a mere jingle. There seems to be no end to his variations. The bird will sometimes sing in an under tone, and when near you, while thus singing, the sound would seem to come from a great distance.

This bird arrives here about the 15th of April, and builds its nest about the middle of May; they also raise broods in June, July and August, as I have found nests in each of those months. Their nests are built on the ground, sunk somewhat, so that the top comes a little above its leafy bed. The nest is composed of grass roots, and

lined with fine roots and moss. The eggs are usually four, and blue, without spots. It is unlike the Wilson Thrush's nest, which is always somewhat elevated above ground, and in good part composed of leaves. Ornithologists say the Hermit builds on trees, and has blue spotted eggs. I have no doubt but that there are a number of species that so near resemble each other, that they are described as one, and one of them builds as above mentioned on trees.

"J. A. A." remarks, that the Olive Back Thrush is the least suspicious of the four thrushes. Now the bird I take to be the Olive Back is the most so with me. It is found only in the darkest of forests, and while singing, is concealed in the top of some tall evergreen, and I have noticed the Hermit shuns his dark retreat. The Olive Back has a sweet note, and varies not unlike the hermit, but not of so rich a flow of song; but I think superior to the Wilson. The Olive Back seems to live in communities. You may pass through woods to a great extent and not meet one, when Hermits and Wilsons may be seen and heard. But the Wilson is frequently in the Olive Back's choice retreat, and sings from the under bush far beneath him. I think the Thrushes will have to be newly arranged, when I trust there will be found one or two new species, that now go under the name of Hermit Thrush, (*Turdus Solitarius*.) C. S. PAINE.

Randolph, Vt., July 19, 1861.

For the New England Farmer.

#### BEE HIVE IMPUDENCE.

On reading the *Farmer* of June 29, I learn that Mr. Brackett has opened his battery upon me again. He seems to know all about other people's business, and mine in particular. He reminds me very much of the man in the fable who had a hoe handle so long that it was easier to work in his neighbor's garden than in his own.

Mr. Brackett's article compels me to make a full statement, and show the true difference between my Patent Compound Hive, and the one known as the Langstroth Hive. I have ever refrained from saying anything against any patent hive or patentee. But being assailed by a party who is a perfect stranger to me and my hive, I feel it a duty I owe to myself and hive, and to bee-keepers generally, to show the exact difference in the two hives, and then leave it to the reader to judge which is the most desirable.

1. The Compound Hive is 24 inches in height, including 8 inches in the top; the depth of the cap for surplus honey boxes, 18 inches by 10—holding over one bushel, aside from the honey boxes; it is also supplied with movable comb guides, 13 inches in length by 11 in depth—eight of them filling the hive—with an arrangement of my own invention at the top of the bars or frames, causing the bees to build their comb within the guide perfectly straight, without the use of either bee comb or beeswax.

2. The Langstroth hive has a movable comb frame, some 18 or 20 inches long, by 6 or 7 inches in depth, with a flat bar at the top of the frame; in order to have the bees build their combs within the frames, the bevelled edge or salient angle is made use of on which Mr. G. H.

Clark holds a patent; and every person using the Langstroth hive is liable to pay another fee of five dollars any moment to the agent of Mr. Clark. I suppose Mr. B. was not aware that the Langstroth hive was an infringement upon another patent.

3. The Compound Hive is so constructed that it can be used in double form, giving a dead air space around the entire swarm, or the hive can be used in a non-swarving condition, thus preventing natural swarming; or it can, in case of emergency, be used as two separate hives, giving ample room for two separate colonies; it can also be so arranged that the bees can occupy the main portion of the hive, whilst the other part will answer as a platform to set it upon.

4. The Langstroth hive is so constructed that it will not permit of any of these changes, and in shape and appearance resembles a small size cook-stove more than it does a bee-hive.

5. The Compound hive is furnished with a metallic instrument called a regulator, thereby giving the bee-master full control to the entrance of the hive at all times. It is made adjustable by means of a thumb-screw, giving an entrance from one-fourth of an inch to four and a half inches, as occasion may require. With this instrument, the drones can be destroyed. A colony can be prevented from flying to the woods in swarming time.

6. The Langstroth hive has an entrance over one foot in length; two small three-cornered blocks are made use of in contracting the entrance, which are easily removed by the bees, and they cannot be made stationary without nailing, rendering them very inconvenient to manage.

7. The Compound hive is supplied with another instrument called a bee-catcher, wherein a colony of bees can be captured in the hive from a tree in the forest, several miles away, and serve us the same as our other colonies; or a swarm of robber bees can be captured in a hive by themselves; this being the only way to break up robbers successfully. By the use of it a swarm of bees could be captured in the hive in less than one hour at any time, should the bee-master have occasion to sell a swarm and wish to deliver them before night. The bee-catcher can also be successfully used in expelling bees from the surplus honey boxes after being removed from the hive, and no danger of the bees returning to rob it.

8. The Langstroth hive has nothing of this kind. I suppose Mr. B. is aware that the Langstroth Patent has but a short time to run, it being patented in 1852.

I have made several improvements upon the Compound hive, and taken out several patents within the last three years.

Mr. Brackett has also accused me of copying cuts after Mr. Langstroth, and also of copying him credit. This charge is untrue. I have ever endeavored to give credit where credit was due. I would further inform Mr. B. that I have European publications in my possession that contain many of the cuts found in Mr. Langstroth's book.

Having been interested in patent rights for many years, I have learned this fact, that when Mr. A. has invented a machine and Mr. B. has improved upon the same, as his letters patent will show, the only course Mr. A. has got, is to

ery infringement, humbug, and the like. I am also well aware that most of these things come from ignorant and irresponsible parties, who know nothing of the principles of infringement, or the laws that govern Patent Rights.

If Mr. B. had made a full quotation from my book, page 99, it would not have seemed quite so improbable as he tried to make it appear in his article of June 29. I did say, if a bee-keeper should commence with a strong, healthy colony, in the spring, furnish them with a large or non-swarming hive, supply them with the comb already made, prevent the male bees and the drones from hatching, and should it be a good honey season, with good management, the apiarian might expect two or three hundred pounds of honey.

It is true, all these advantages could not be had perhaps at one time in fifty. Should I have stated these great results could be attained every year in any kind of hive, it would have been folly indeed. I have made no assertion either in book or circular but what I can substantiate.

The quotation I made from an article written by Mr. Quinby, published in the *Rural New-Yorker* of Dec. 18, 1858.

Certainly, it does not seem to tickle Mr. B. any better than Mr. Q.'s straws did in the *Farmer* of May 18, simply because the quotation was certified to by me. Mr. Quinby goes on to say that he had a large number of the Langstroth hives in use, and that two-thirds of the bees built their combs in every possible direction without any regard to the frames, making them, so far as movable frames were concerned, no better than the common box hive; also stating that both time and money had been thrown away by those who had purchased the hive, and recommended the common hive in its stead. Is this wonderful hive any better than it was in 1858? There has been no additional patent taken out since to make it better. What Mr. B. calls a humbug quotation may be found in the *Rural New-Yorker* in the precise words I have made use of. It is very evident that one of two things must be the case—either that Mr. B. is a humbug or Mr. Quinby has made two contradictory statements in reference to the same thing. I think that Mr. Q. is too well versed in bee culture and entomology generally, to be guilty of anything of the kind. As Mr. B. has never seen one of my complete hives, I would refer him to Mr. J. W. Merrill, 28 Devonshire Street, Boston, who will give him a circular explaining it in full. K. P. KIDDER.

*Burlington, Vt.*

P. S. The reason why I have not replied before is that I have had my own business to attend to, instead of that of my neighbors'.

REMARKS.—We cannot longer continue this discussion, as there is little in it to benefit the general reader or the bee-culturist himself.

CURE FOR RING BONE.—A correspondent asks for a cure for "Ring Bone." Here is a good one, that has been tried, and is sure for all sprains, bruises, blows, etc.:

Dissolve 1 oz. camphor in 8 oz. of spirits of wine; add 1 oz. of oil of turpentine, 1 oz. of

spirits of sal ammoniac,  $\frac{1}{2}$  oz. of oil oreganum, one big table-spoonful of liquid laudanum; rub well in with the hand for a quarter of an hour, four times a day, and a cure will be effected.—*Ohio Valley Farmer.*

*For the New England Farmer.*

#### THE APHIS, OR PLANT LOUSE, ON WHEAT.

Within three or four days, we have received several specimens of wheat heads covered with a little plant louse, which is described below by Mr. F. G. SANBORN, who is now engaged in the preparation of the new edition of Harris on Insects. It does not appear that they have yet injured the wheat.

*Andover, July 31, 1861.*

MR. EDITOR:—The grain crops throughout the State are now being greatly injured by insects of two different classes, both occurring in extraordinary numbers, although one of them is a very common species, and may be found in smaller quantities in any year, beneath stones and upon various succulent plants.

The first, which has been aptly styled the "army-worm," is said, by Dr. Fitch, of New York, to be the larva or caterpillar of the *Leucania unipunctata*, (see the *Country Gentleman* of July 25, p. 66, for Dr. Fitch's interesting communication on this insect.) It is of a dark brown color, almost black, with three yellowish longitudinal stripes on the upper side, and two bands of the same color just above the legs, which are sixteen in number; all of the stripes are much more distinct toward the extremities; the head is rounded and beautifully marbled or honeycombed with dark lace-work on a yellow ground, and from the top of the head two curved black lines run down the face, diverging as they approach the mouth. I have had a number of specimens sent me from Fall River and vicinity, which vary from eight lines to an inch in length, and I have reason to suppose that none of them have arrived at their full growth. On superficial examination it appears to be naked, but on holding it between the eye and the light a few short hairs will be seen thinly scattered over the body, and rather more thickly upon the head. They began to attract attention in this State about the first of this month (July,) and rapidly devoured almost every green thing in their path, some fields being entirely swept by them. They appeared to march in a compact mass, when passing from one field to another, preferring a gateway to crawling through a fence or wall, beginning to move about noon. By digging a ditch about the field which it is desired to protect, the inner side being as nearly as possible perpendicular, and eighteen or twenty inches in depth, the worms, after falling into it, cannot, if the soil be at all loose, crawl up the perpendicular side, and must either die of starvation, devour each other, or be killed in various ways, of which we have several to choose from. Dr. Durfee, of Fall River, informs me that he destroyed them by dragging a heavy stone roller over them, and crushing them, also by laying a quantity of shavings along the ditch and setting them on fire. Others have poured upon

them extract of tobacco, whale-oil, soap-suds, &c., with good effect. Hogs and turkeys are exceedingly fond of them, and it is probable that the former will destroy a great many in the pupa state, by turning them into the field after the crop is gathered, which will of course decrease their production the following season.

The second insect, of which I have received many specimens from Greenfield, Northfield, Sheffield, Worcester, and other places, is an *Aphis* or plant louse, belonging to the same family as those small green lice which are so numerous on tender shoots of various plants, rosebushes, apple trees, cabbages, &c., but apparently an undescribed species. It is a very small dark red insect, with six blackish legs and long antennae of the same color, and may be found on the heads of wheat, and oats, between the grain and the stalk, sucking the sap through a long slender tube which is concealed beneath the body when not in use. The grain not receiving the necessary amount of nutrition, will naturally become shrunken and dry before fully ripe. These insects may be in a great measure killed by building small fires on the windward side of a field attacked by them, and throwing on wet straw, leather scraps or any other substance which causes a great amount of smoke without flame. A damp day, when the smoke rolls slowly along near the ground, should be selected for this operation for two obvious reasons; to prevent setting fire to the crop, and to allow the smoke to filter through the stalks before rising.

Among the specimens which were sent me of the heads of wheat, with this louse upon it, I find one or more of each of the three chief enemies of plant-lice from time immemorial, viz.: the "lady-bird," *coccinella novemnotata*; the green lacewinged fly, *chrysopa*; and the *syrrhus*, a two-winged fly, which in its larva state, as well as the *chrysopa*, devours thousands of these pests annually, while the *coccinella*, in both the beetle and the larva state, lives entirely upon them. I am informed that the "lady-birds" are very numerous among these lice, and if so, they should be protected and cherished for the great good which they do in keeping in check these pests.

FRANCIS G. SANBORN.

*Fitzwilliam, N. H., July 30, 1861.*

MR. EDITOR:—I send you to-day a few heads of wheat selected from a field of three acres, sowed May 3d, on the west side of a hill in the vicinity of a mill pond. It was formerly cultivated and mowed, but has been pastured during the last four or five years. I broke it up this last spring, and spread a good coat of compost on it, made from my tannery, and also spread on it about fifty bushels of ashes to the acre. A large part of the field was almost destitute of vegetation, the grass roots having mostly died out, though there were some white or grey birches, and also wild cherry growing on a part of it. The wheat looks very well, but you will observe that the heads are covered with a little louse, or something of the kind, which adhere very closely and firmly around the root of the kernels. They are of various colors and sizes, though mostly bordering on a brown, and that appears to be the completion of them when arrived at a certain age or size; how they will

look when they come to maturity, I cannot yet tell.

It is some four or five days since I first observed them, and I am unable to see that they have injured the wheat yet, but I am loth to believe that they mean it any good, though they may not yet be large enough to do it any injury; and perhaps will not at all. Can you or any of your readers give me any light about them, what they are, or what they intend or will be likely to do, and where they came from, and where they are going, or what they will become? &c., &c.

The most of our wheat fields in this vicinity are covered with the "varmint,"—are they generally so in the New England States? I have seen no one who has ever seen anything of the kind here before. If they mean evil, what can we do to guard against them or destroy them? Can we do anything?

I have another field containing about one and a half acres, sowed April 27, on an eastern exposure, on land that had been cultivated one year, which is now full in the milk, and on which I can find but very few of the lice, as I call them, which is very good. And still another acre, sowed May 9, on land cultivated last year, on which I find very few as yet; and still another field of half an acre, sowed on green sward about the middle of May, which is very stout; and this last is covered with the "varminths." This last has an eastern exposure. Last year I raised about five acres of wheat, but saw nothing of the kind.

A. S. KENDALL.

*For the New England Farmer.*

#### PROFITABLE POULTRY RAISING.

MR. EDITOR:—I see by your June number that "I. R. B.," of Brookline, requests a few additional items as to my success in making poultry so profitable. First, I have a good warm coop with four rooms; one with gravel and ashes for sitting hens; the middle room for feeding and roosting; one for chickens, till they are two or three weeks old before turning out doors; windows on the roof and sides; whitewashed every spring, and the droppings taken out every morning in warm weather, and in winter every four or five days. Nest boxes fourteen inches square, set on the floor, handy to be taken out for clearing and smoothing. Food, corn, oats, scraps, pounded shells, kept before them during the time the ground is frozen, and some kind of vegetable every day to take the place of grass. The place for rambling during the summer is about 45 by 52 yards, one-third of which is occupied for drying tan, the balance set with fruit trees, which a few years ago were nearly destroyed by the canker-worm, (which should be credited to the fowls as labor,) now nearly disappeared.

*Salem, July, 1861.*

I. B.

POISONING RATS.—The following mode of preparing poison for rats is recommended. Mix it with corn meal, tie it in a small rag, making the parcels as large as a hickory nut, then grease the rag on the outside with lard, and place it near the burrows. The old rats will carry the poison to their nests to their young, and the whole family be destroyed.

## OVER THE LINE.

In a "one-horse shay," and with an observing friend, we had the pleasure of crossing the line of our goodly Commonwealth into the State of New Hampshire, a few days since. Our principal object was to learn the proper season of gathering the seeds of the white and pitch pine trees, and the best mode of collecting and preparing them for use. A year or two since, a destructive fire swept over several hundred acres of woodland, in Concord, and the adjoining towns, which now lies nearly barren, as the partially burnt wood has been cut and carried away. The intention of some of the enterprising proprietors of this land, is to plow and sow it this fall with rye and the seeds of the white and pitch pine, and cover it once more with the forest.

The process to effect this desired result, from what we could learn, is to collect the seeds of the white pine during the latter part of this month, August. If a large tree can be found, filled with cones, they should be examined, and if the seed is perfect, an expert climber may ascend and cut off the limbs containing them, or clip off some of the cones with pruning shears on long handles. Or, the tree may be felled, the cones collected and laid away in some airy loft to dry. In this case, the tree should be peeled so as to preserve it in good condition for timber. When the cones are dry, the seeds may be threshed out in some careful manner so as not to crush the seed, that lies directly at the bottom of the scales, which will spread apart as the cone becomes dry. The seed of the pitch, or yellow pine, may be gathered at any time much later in the season, as they do not ripen till November. We have heard two or three observing persons remark that the white pine does not produce its seed constantly, but about once in seven years. It requires two years to bring a cone to maturity. They start out in June on the ends of the upper branches, and at the end of the season are two or three inches long, and of a fresh green color. In the next autumn they mature, and are usually five or six inches long. On a cultivated tree near our dwelling, we found plenty of cones last fall, many of which were eight inches in length.

The seeds of the white pine are about one-eighth of an inch in length, flattish round, and of brownish color.

The intention of the person who accompanied us, and whose land was burnt over, is to plow it, sow rye and harrow it in, and then sow the pine seed upon the freshly-harrowed soil, and leave it to take care of itself.

There is a large extent of now almost worthless lands in New England, which might be covered with a beautiful and highly valuable forest of pines in thirty years, if we had more persons

of observation and energy, to start ahead in the work. Mr. B. F. CUTTER, of Pelham, N. H., upon whose farm we spent a considerable portion of the day, and for whose kindness we are under obligations, has given this subject much attention, and we hope will favor our readers with a full account of the process of collecting the seed, and sowing it for the purpose of raising forest trees for transplanting.

If some one will show our people how, and excite them to make the attempt, the amount of valuable timber in New England fifty years hence may be double what it is at this moment, beside supplying the usual demand made upon it.

We wish to say to our brother farmers, that if they will imitate us in this day of recreation—and at the same time of research—they will find it one of profit to body, mind and pocket; but especially so to the mind. It opens to it new channels of thought, affords opportunity for a comparison of views in the occupation, and in the modes of management adopted. It creates new associations and friendships, and widens the circle of observation and objects for reflection while laboring in your own fields. A day thus spent in each quarter of the year cannot, in our opinion, possibly be spent so profitably in any other way. With your best suit, a good companion and a good team, no monarch at the head of his realm ever had equal cause for thankfulness and contentment.

*For the New England Farmer.*

## WINTER WHEAT.

This being the last month of summer, and the time soon at hand for sowing winter wheat, you will allow me once more to say a word to our farming friends. Your New England States have nobly added to your grain record the past year. Your farmers have come to the wholesome conclusion not to travel beyond their own stone walls for the family flour. All doubt is now removed as to the wheat-growing capacities of your soil. Bear in mind the excellence of winter wheat over spring wheat, for white, good flour. Also bear in mind that winter grain ripens early, and that rust catches your spring grain in dog days. Also, that mischievous insects trouble spring grain more than winter.

In Maine, Vermont and New Hampshire, (on strong soil,) wheat should be sown the last week in this month. In Connecticut and Massachusetts, first week in September. Early sowing and good depth of root makes it safe against winter killing. Every farmer has more or less mowing land that needs to be turned over. Sod furrow is best for winter wheat. Immense are the acres of your exhausted mowing lands, that yield half to three-fourths of a ton to the acre, that can be rendered very profitable, even without manure, by sowing wheat. Soak the seed in salt pickle 12 hours, rake it in ashes, and in the spring sow ashes or lime over the field. At a safe valuation, your wheat is worth \$35 to \$50 per acre, and the

straw is worth double the hay crop. The orbs of some farmer may swell at this enormous statement, but I will stake my reputation for the truth of it. Wheat is always worth \$2 a bushel to the farmer; the straw pays for cultivation.

Is not the insect spoken of by Thomas J. Field, of Northfield, the weevil? The winter wheat escapes it, from its being early.

Many are the reasons that should arouse your farmers to labor for an overflowing granary. Our cities are being emptied by civil war: sewing women, carpenters, merchants, draymen, all trades and occupations, are being driven out to their country friends. Already, it is a time of broken fortunes and broken hearts; Southern treachery and political traitors have bred and declared civil war; an honest yeomanry were never breeders of civil war, history tells no such black tale of them. Like the villain that would rob the church of its ornaments and burn the temple to conceal the theft, so have they robbed us of millions of private property, and now seek our blood and the overthrow of the government. Farmers, we trust you are not ready for the sacrifice. Your noble and sturdy regiments that daily, (almost,) pass through this city, show that there is a *will* to be executed, and a judgment to follow. Your factory villages, your workshops and tanneries, will cease to be busy. Butter, cheese, eggs and hay, will lesson in demand—but the principle of government or no government is being tested. Let us be patient—triumph is ours.

New York, Aug. 8, 1861.

H. POOR.

#### THE RICHES OF A DROUTH.

Several very interesting experiments which were tried by Prof. Higgins, go to show the action of drouth in bringing mineral waters from a depth to the surface of the soil. In one case he placed a solution of chloride of barium in the bottom of a glass cylinder, and then filled it with dry soil. After long exposure to the rays of the sun, the surface of the soil was tested with sulphuric acid, and gave a copious precipitate of sulphate of baryta. Chloride of lime, sulphate of soda, and carbonate of potash, were experimented upon in like manner, and upon the application of proper tests the surface of the soil showed their presence in large quantities, drawn up by the rising of water from underneath, as in the case of drouth.

The parched earth—all vegetation dwarfed and withered by the heat—seems suffering under a curse; but it is only an affliction for the present—"a blessing in disguise" for the future. "The early and latter rains" may produce at once abundant crops, but dry weather is needed to bring to the surface from the depths of the earth, where else it would be forever unemployed, food for future harvests. It is Nature's ordinance for keeping up the fertility of the cultivated soul.

But this is not the only way in which Nature converts drouth into a blessing. The rootlets of plants, unable to find their accustomed food in solution near the surface, are compelled to make deeper and more extensive investigations in search of sustenance. If the soil is deeply pulverized, and well underdrained, so as to prevent packing together and baking, these roots will travel astonishing distances, running away from the drouth. While the surface is kept moist by fre-

quent rains, evaporation goes on rapidly, carrying off a great amount of heat, the subsoil is left cold and the roots are deterred from penetrating it. But when the surface becomes parched and evaporation checked, a genial heat is diffused through the lower stratum, and a warm invitation is given the fibres to descend—an invitation to dinner which they seldom decline.

Suppose now our wheat or corn plant, or even tree, has, by the pressure of circumstances, sent down its thousands of feeders, and become well established in its new quarters. It is not evident that it is in the best possible condition to meet every emergency? It laughs at the drouth and luxuriates in scorching days and sweltering nights. And when again the rain descends and refreshes the thirsty surface, our plant has a very important advantage over those whose roots lie near the surface, and are many of them shriveled and useless. It is provided with a double set of suction pumps, and makes a wonderful growth in a very short time.

Again, not only are valuable substances drawn to the surface by the moisture ascending during drouth, but the long roots which penetrate the subsoil, bring up and store near the surface the potash, lime, and other mineral elements. The roots themselves, after the plant has ripened, rot, and yield up to another crop what they have stored up. The great secret of the benefit of a crop of clover turned under, lies in the fact that it sends down very long roots, and many good farmers are of the opinion that the roots are of more value than the tops for manure.

But the most important of all the lessons we learn from drouth, is that a deep, light and porous soil is almost drouth proof. All the effect it has is to cause the plant to present its drafts to the bank lower down—the upper one may suspend, the lower one never does. It is not sufficient to plow beam-deep—if it is not properly underdrained the soil will pack so close and hard that the slender roots will fail to insinuate themselves into its confidence.

Keep your land light and mellow, to a good depth, by whatever means, and "the riches of a drouth" will certainly be secured in abundance.

#### TO PREVENT FLIES FROM TEASING HORSES.

—Take two or three small handfuls of walnut leaves, upon which pour two or three quarts of soft cold water; let it infuse one night, and pour the whole next morning into a kettle, and let it boil for fifteen minutes. When cold, it will be fit for use. No more is required than to wet a sponge, and before the horse goes out of the stable let those parts which are most irritated be smeared over with the liquor.

EXCHANGING BOYS.—An exchange of farmers' sons is proposed by the *Homestead*. It is argued that it would prove mutually advantageous for a Massachusetts farmer's boy to exchange, for a season or two, with a Maine or a Vermont boy. Among other reasons it is suggested they would each act somewhat in the character of a "hired man," learn new processes, &c. &c.

## TOP DRESSING GRASS LANDS.

Now is the time to commence the preparation of materials for this important work. Some persons doubt whether the application of manure to the surface of grass lands is the best mode of using it. This depends upon two or three circumstances, viz :

1. Upon the nature of the soil.
2. Upon the time of application.
3. Upon the condition of the dressing.

Top dressing will continue to bring a crop longer on a moist soil than on a dry one, first because such land is the best adapted to grass, and secondly, because the manure, by being kept moist, is brought into a state of decomposition, and becomes prepared as food for the plants, instead of drying up. Top dressings, therefore, for high lands, should be applied in the spring, as early as March or the first part of April, so as to receive the early rains, and get thoroughly leached, and the coarser particles washed down among the roots of the grass, before the hot and dry weather comes on. Or, it may be applied—and perhaps with better effect—late in November, where it will receive the later rains and be leached by them, or be covered with snow to be melted upon the dressing, and thus carry its fertilizing properties gradually to the grass roots during the winter and spring.

It is unpopular—we are fully aware—to recommend top dressing for high and dry grass lands; still we believe it to be a profitable way of fertilizing, when it is done judiciously. The error consists in cropping the land for many years, without manuring, until not only the fertilizing agents are exhausted, but the *roots of the grass themselves* have either died for want of food, or have been driven out by plants more hardy and persistent than themselves. When a field is in this condition, it is folly to top dress it. There is no basis upon which to act. The dressing was deferred too long—there is no recuperative power left. The remedy for such land is through the plow, manure, cultivation and *plenty of seed*, or all these, excepting the cultivation, which may be omitted by turning over the sod and laying down in August, or early in September.

In a wet season something may be done on high land by spreading fine compost manure liberally, scattering on grass seed and harrowing. Clover, sown early in April, in this way, will sometimes succeed well. If the farmer would be watchful, manure his fields in season, occasionally scattering a little seed over them, while producing liberal crops, he might save considerable expense in plowing and re-seeding. All this, however, should not prevent a judicious rotation of crops, and, in turn, bringing the grass fields into cultivated

ones, which is undoubtedly the course that will secure the most certain profits.

The *time* when top dressing should be applied, is a question upon which our best farmers do not agree. What is needed, is a copious rain immediately after the dressing is spread; but as we cannot command this, we must exercise a sound judgment in the matter, and be content with the result. If the compost cart could follow that which carries away the hay, and a liberal shower follow, perhaps there would be no better time to apply the dressing; and in a moderately moist season, this course will succeed well. March, and early April are good seasons, but then the objection exists of cutting up the fields by the feet and wheels of the team. In the autumn there is little danger of this, unless the season be very wet, the more pressing work of the warm season is out of the way, and upon the whole, perhaps this is the best season for this operation.

The third point requiring care, is the condition of the dressing when it is used. It should be rich, that is, made of good materials, and fermentation not carried so far as to set free its gaseous properties, and then it should be fine—if as fine as sand so much the better. This will allow of its being spread evenly, and present such a surface to the rains and dews as to have every part of it quickly penetrated, and its fertilizing properties carried to the roots below.

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*For the New England Farmer.*

## CUTTING AND SEASONING TIMBER.

Much has been written and said in relation to cutting timber; of the durability of timber; of the condition and season when cut, as affecting its durability. This seems to me a waste of words and ink. Wood workers, from necessity, must and do cut their timber, most kinds and for most purposes, in the winter—and work all winter too, not regarding the changes of the moon or scarcely of the weather, in order sufficiently to stock their mills. It is true, timber might be cut in the fall and left on the ground to be drawn in the winter, but wood workers do not operate on that plan at all. Hemlock must, of necessity, be cut when the bark can be taken off. Hemlock is sometimes cut in winter and the logs peeled in the ensuing summer, but I doubt if there is a man in all New England who knows in which case, if either, the lumber is the more durable.

Timber of all kinds, cut at any season of the year, will be injured more or less if suffered to remain in the log with the bark on, exposed to the sun and weather during summer. But manufacturers don't let their logs lie about all summer, except in hard times like these. I am not prepared to say at what time timber contains the most sap, but I know that it contains a large amount in winter, and when cut then, retains it in the log all summer; and I find by actual and accurate experiment, that birch, sawed into pieces 4 feet wide by 1½ inches square, and left stand-



ing on end, has lost over 24 per cent. in weight in 12 days, (under cover this month, July.) I find also, that other samples average a loss of 27 87-100 per cent., the greatest loss, (being longer drying,) being 32 8-10 per cent.

Thus it will be seen that birch and beech will lose nearly one-third in weight by becoming seasoned. A cubic foot of green birch will weigh 64 pounds, (a little more than water, 62½ pounds.) A cord 8,192 pounds. A superficial foot 5.33 pounds.

WOOD WORKER.

*Marlow, N. H., July, 1861.*

*For the New England Farmer.*

#### REMARKS ON CLIMATE.

##### CONCLUSION.

Upon the premises stated in my first letter, I will try to analyze a few of the most prominent elements in the world, and show the cause of their stability or instability. The North American continent has a variety of climate, different from all other parts of the world, because its ranges of mountains and valleys are different. In the older portions of the continent exist lofty mountains, and these skirt the shores of both oceans, while between these two portions of our continent exists a newer portion of land, which, after the mountains were raised above the sea for a long time, was covered with the waters of the ocean, and became a regulator of climate between the Gulf of Mexico and the Arctic Ocean, carrying the waters of the gulf to the Arctic Ocean through this channel, instead of the bed of the Atlantic, where the Gulf Stream now runs; giving our continent an entirely different climate from that now existing. At the commencement of the Tertiary Period, Sir Charles Lyell informs us, that the Gulf of Mexico extended to near the site of the present city of St. Louis, and for more than a thousand miles, the land has been formed since the beginning of the Eocene Period, till its surface has assumed its present form. In the Carboniferous Era, the polar regions probably enjoyed a mild climate, as the tropical waters leaving the Gulf of Mexico passed through that portion of our continent between the Rocky Mountains and the Alleghany range, pouring the tropical waters into the Arctic Basin, and forming a climate of sufficient warmth and humidity for the production of an enormous vegetation. Remains of that vegetation exist there at the present day. The skating parties of Capt. McClure discovered on the north of Banks' Land a range of hills composed of one entire mass of wood in every stage, from petrification to a log fit for firewood! Many trees were among it, but were too much decayed to stand removal. In the vicinity the bones of musk-oxen and deer were found.\* This shows conclusively that a milder climate once existed there. The existence of coal has also been discovered there. But a later upheaval has disunited these waters, and produced a mighty change in climate, not only on this continent, but in Europe. As our continent now exists, the changes in the temperature of the weather must forever be enormous. From the extreme heat of summer to the extreme cold of winter, the change is probably beyond the extremes of any other

part of the world. I am speaking now of that great plain existing between the Alleghany and Rocky Mountain ranges. The under current of air passes freely without any obstructions from the Gulf of Mexico to the Arctic Ocean, and from the Arctic Ocean to the Gulf of Mexico. These two opposite currents of air are capable of producing enormous vicissitudes in the climate of that otherwise lovely valley. It is subject in summer to a tropical climate, and in winter to an Arctic one, while, at any time, a sudden change of wind may produce a contrary effect in a very short time. The lower current must necessarily come from north or south. And the tropical wind from the eastward is frequently deflected by the highlands west of the Gulf and the Rocky Mountains, carrying the heat of the warm waters of the Gulf of Mexico through this immense valley, while the Arctic winds are conducted south by a similar cause. When this valley was submerged, the Gulf Stream did not exist in its present channel, but flowed through this valley. Then England, and the west of Europe, would have had a climate like the present climate of Labrador, had not other conditions operated more favorably. Then Labrador had a climate more delightful than the present climate of England.

As I said before, the climate of America is governed by different laws from the climate of the eastern continent, because its physical geography is different. The western winds, as they pass over the Pacific Ocean, bring the heat of the waters on the western coast, forming a most delightful climate, varying but little in temperature from 30° to 45° of latitude, having the summer temperature of New York city, 40° 45' latitude, of 70° heat. The annual mean temperature of Nantucket in latitude 41° 17' is represented by the isothermal line of 50° temperature; it strikes the Pacific coast at 48° north latitude, 15° further north on the Pacific coast than on the Atlantic. The winter temperature of Virginia in latitude 36° 30' is represented by the isocheimal line of 40°, and strikes the Pacific coast in latitude 49° 13' further north than on the Atlantic. The isotherial line or lines of equal summer heat, attain their highest point of latitude at 110° west longitude, and their lowest on the Pacific coast. The isocheimal line or lines of equal winter temperature are highest in latitude on the western coast, and lowest at from 90° to 95° west longitude. This is the longitude of Louisiana, Arkansas, Missouri, Iowa and Minnesota. This shows that those States are a little colder in winter than the same parallels of latitude on the Atlantic coast, and much colder than on the Pacific. The lines of summer temperature commence rising from the Atlantic coast gradually to about 90° to 95° west longitude, then they rise abruptly to the Rocky Mountains at 110° west longitude, their maximum height. This shows that from 90° west longitude, the extremes of heat and cold increase far into the valleys of the Rocky Mountains, while on the west side of the mountains the coast climate varies but little from 30° to 45° of latitude. There is but little variation in the annual and winter lines of temperature from the Atlantic coast to 90° west longitude, yet the temperature rises quite rapidly in the Southern States, while from Long Island, it rises rapidly to Troy, N. Y., and then passes a little south of west through Lake Erie, when it

\* Annual of Scientific Discovery for 1854, page 316.

begins to rise again. Facts go to show that the great lakes have considerable influence on the climate of the surrounding country, having a cooling influence in summer, and mitigating the cold of winter. The current of westerly winds as it passes over the Pacific Ocean, brings warmth to the western coast, but in rising over the Rocky Mountains, it loses a portion of its heat by its expansion, and in passing ridge after ridge, it imparts the greater portion of its heat to the soil below, and when it leaves these mountain ranges, it is dry and cold. When it comes to earth again, it brings down the cold temperature of the upper regions, whose chilling influence is felt in the Mississippi valley, frequently in the cold months of winter. This wind brings no rain. All the rain or snow that falls in this valley is brought in the under current from the Gulf of Mexico, or from the Arctic Ocean. These currents are frequently deflected eastward by the upper current, carrying the waters of the gulf to feed the great lakes. On the western border of this valley, near the Rocky Mountains, these westerly winds drive most of the gulf winds eastward, so that there exists a broad belt of treeless desert, so sterile that it is valueless to man for purposes of agriculture. The upper current frequently mingles with the lower, before it reaches New England, lowering its temperature, and sending its chilling rain and snow upon our hills as a memento of its mighty force. The under current on the Atlantic coast, known as the sea breeze, in passing over the cold polar oceanic current along the coast, must impart a chilling influence on the land, especially through the New England States and British Provinces.

Our continent is closely connected with the polar lands. There is no large open sea between us and the pole, for oceanic currents to pass over and regulate the climate. Our north and north-east winds sweep over an immense territory of land, which cools them down below their natural state. The principal pole of greatest cold, or the magnetic pole, lies in latitude about  $77^{\circ}$ , and about  $100^{\circ}$  west longitude, at, or near the place where Sir John Franklin is supposed to have been lost. It is on Grinnell Land, a little north of the Georgian Isles. The line of variation passes through the Mississippi Valley, according to the U. S. Coast Survey, about where we find the greatest extremes of heat and cold.

On the eastern continent we find the great westerly current of air warmed up by the waters of the Gulf Stream as it passes over the western part of Europe, giving a climate on the coast much like the climate of California. This climate grows colder as we pass from the coast, because the land cools the westerly current of air before it leaves the European soil. Southern Europe from the Mediterranean Sea to the parallel of  $50^{\circ}$  north latitude, appears to have undergone mighty changes in ages gone by. Mountains are raised in many directions, but the chief ranges lie in an east and west direction, or at right angles to the mountains of America. Here, amid this universal "wreck of matter," rear the lofty heads of the mighty Alps, far into the regions of perpetual snow. On the south side lie Italy and Greece—those lands celebrated for works of art and classic lore, whose bright skies and green hills lend enchantment to the view.

The air in passing over the Mediterranean, attracts heat and moisture from its waters, which makes it one of the most agreeable climates on earth. North of these mountains the climate gradually grows colder after leaving the coast, to the eastern bounds of Europe, according to the law of nature, which is based on the cooling properties of land. Here the westerly current passes over the Ural Mountains into lands almost wholly unknown to us. Here are the cold regions of Siberia—the great Steppes of Asia, hemmed in on the south and east by lofty mountains, and open to the Polar Sea. If there is a cold climate on earth, it is here. If there is a climate uncongenial to the march of civilization, it is here. Even the climate of Labrador is more genial. The only condition to mitigate the cold is the Polar Sea, and were that sea transformed to land, the whole country would be uninhabitable. Were we favored with such a sea at the north of our continent, we should enjoy a far milder climate than we do now, for other conditions are far more favorable. The Great Altai Mountains shut out that region from the influence of the Pacific Ocean, and the Ural Mountains on the west, over 5000 feet high, act as a refrigerator on the westerly current of air. The country south of this from the Great Altai Mountains in the north, to the Himalayas on the south, has all the variety of climate from the Arctic to the tropical, and the soil has every degree of fertility, from the most perfect desert to the most fruitful of all lands. It is a region which indicates great geological disturbance. These are a continuation of those mighty ranges of mountains which commence at the Rock of Gibraltar, and pass through Spain to the Pyrenees, and through the volcanic region of France to the Alps, through Turkey to the Caucasus, and through the north of Persia to the lofty heights of the Himalayas, then through the south of the Chinese Empire to the ocean. North of these, the mighty forces of nature have raised innumerable chains whose lofty summits are covered with perpetual snow.

South of these great chain of mountains lies a tropical climate extending considerably into the temperate zone, while the most southerly point of the continent lies north of the equator. Here lies the Burman Empire, Hindostan, Persia and Arabia. Here is the southern slope of Asia, with a climate whose temperature is as much above that due to latitude, as the climate of Siberia is below. The warm winds from the Indian Ocean carry an immense amount of heat and moisture over the eastern portion of these fertile lands. Arabia receives but little wind or moisture from the ocean, but is a land of calms and conflicting winds, mostly of its own raising; from its intense heat, which causes those parching winds called the Sirocco, and in consequence of these conditions, the whole country is almost an entire desert.

The Continent of Africa is so little known, that it is almost impossible to give a description of its climate. Its physical geography is so obscure, that the causes that govern the climate are but partially understood. The north part, beyond the influence of the Mediterranean Sea, is a complete desert. It lies in the belt of calms and conflicting winds, and those are raised only by its intense heat, and bring no rain from any quarter. Even in the fertile region of Egypt, it seldom or

never rains, yet the soil is kept fertile by the inundations of the Nile. On the west of Egypt, lies the great desert on which rain never falls, and on which all climatic conditions are forbidding. On that belt of land from the Persian Gulf to the Atlantic Ocean, there are no conditions favorable to fertility. There is no other part of the globe where conditions are so unfavorable to fertility as in this vast and partially unknown country. South of this on the eastern coast the conditions of fertility are favorable as far as regards the winds. If there is a very lofty range of mountains near the eastern coasts, there may be a desert region in the interior, but if those mountains are not lofty, it is more probable that those regions possess a fair proportion of fertility

D. BUCKLAND.

### THE FLAIL.

BY ANNA L. ANGIER.

A song for the flail! the smooth-handled flail,  
As stroke after stroke it comes down;  
While the golden grains fly, wheat, barley, or rye,  
The toil of the farmer to crown.

The useful and useless he thus will divide;  
And gathering each in its turn,  
The former with care, for the garner prepare,  
The latter he'll scatter or burn.

And what is earth more than a great threshing-floor,  
With the wrong and the right thickly strown?  
But Truth's iron flail, them both shall assail;  
To the winds then shall falsehood be thrown.

—*Boston Recorder.*

### EXTRACTS AND REPLIES.

#### A WINE PRESS—CURRANT BUSHES—INSECTS ON CABBAGES.

Can you inform me where and at what price, a press which will remove the juice from currants, for the purpose of making wine, can be obtained? I suppose there are different sizes and kinds of them. I should want one of small size for family use, but of good strength and quality, and one which will do its work effectually.

At what distance should common red currant bushes be set in fields to grow in the tree form?

Will ashes or lime prevent the depredations of lice and other insects, or of worms on cabbages? Is it best to sow seed to raise cabbages in the hills, or in beds to transplant?

A MONTHLY READER.

*Franklin, July, 1861.*

REMARKS.—Such a press as you inquire for can be purchased for \$5.00. But do you need it? Nothing is more simple, or, scarcely more easy, than to mash the currants with the hands, as the women mix bread. A bushel of them may be mashed in a very few minutes. Then take a large linen or tow towel and wring the juice from the pulp, not being particular to wring it very dry. A gentleman who has been making currant wine for thirty years said to us, the other day, that, having used the press and the hands, he should employ the latter, although the press stood directly by him.

Currant bushes in fields should be set five or

six feet apart, if they stand in clumps, or clusters, so as to leave room to cultivate with a horse where the bushes have considerably expanded themselves. It is well enough to cultivate the currant in the tree form, as a matter of fancy in the garden,—but, as a matter of profit, we think four times as much may be realized in the bush, as in the tree form. Beside, as bushes, they perpetuate themselves, for many years, while as a tree, when the single plant dies from age or injury the hill is entirely gone. We speak from experience, having tried both ways for several years.

Ashes and lime both prevent, in some measure, the depredations of lice on cabbages, though they may not be effectual. They are excellent in promoting the growth of the plants. There is no difficulty in making transplanted cabbages live, if they are taken up when quite small. If they are not more than two inches high when removed they are more certain to live and make a good growth than when left to grow larger before being transplanted. It is a good plan, however, to sow in hills, scattering the seeds considerably, and at the proper season of pricking them out, leave but one plant in each hill.

### THE ARMY WORM.

On Saturday last, my attention was called by an intelligent observer to a worm about an inch in length, and very numerous, almost covering the earth in the particular locality in which they were seen, which was low, marshy ground. I was informed that a similar worm had appeared in other places in this neighborhood. They were gradually advancing towards the brook, near the tanneries of our village, one of which is occupied by my son. I picked up half a dozen of these worms, and placed them in a vial, and filled it with grass. They appeared to eat as though they had no time to spare, and soon devoured it all. It has been replenished half a dozen times since. Now only two worms are to be seen. What has become of the others, I know not—unless they have been eaten by their companions. These are all the facts I have witnessed. I presume they are they same worm that has made such destruction in fields of grass and grain in other places; but must leave to others to tell what they know about them. It is important that their habits should be observed and recorded. J. W. P.

*South Danvers, July 31, 1861.*

### THE ARMY WORM.

The army worm, as it is supposed, has made its appearance in immense numbers on a field of oats belonging to Mr. Benj. Porter, in this town.

Any information showing how they may be exterminated, or their ravages stopped, will be of great advantage to our people.

I learn that a train of guano laid round a field will prevent them from entering it, and judging from what I have seen, it is very distasteful to them, to say the least. C. P. PRESTON.

*Danvers, July 30, 1861.*

## TOADS AND BLOODY MILK.

I used to be told when a boy, not to kill toads and frogs, as it would make the cows give bloody milk—but I did not suppose that any one really believed it, until lately, I have met with two or three that professed to believe in it. The idea always appeared ridiculous to me, and does now; but they have so much faith in it, that I take the liberty to ask you to give your opinion of it, and should like the opinions of your readers, if any are willing to say what they think of it.

Conway, July, 1861. AN INQUIRER.

REMARKS.—Yes—we believe in it, in this way—and in no other. Any person who will throw clubs and stones at toads, frogs, and other useful creatures, and wantonly murder them, will be quite likely so to abuse their cows as to make them give bloody milk!

TO DESTROY FLIES.—To one pint of milk add a quarter of a pound of raw sugar and two ounces of ground pepper; simmer them together eight or ten minutes, and place it about in shallow dishes. The flies attack it greedily and are soon suffocated. By this method, kitchens, etc., may be kept clear of flies all summer, without the danger attending poison. It is easily tried.

I found the above in last week's *Farmer*, and tried it. But it won't do. My kitchen and dining-room are overrun with flies of the most impudent and adhesive breed; and when I saw the foregoing receipt for their mortality, I really felt a glow of happiness. I tried it, as I said. But instead of the "insects attacking the mixture" greedily, they buzz around it with contemptuous indifference, and light on everything else, as if to show their disgust to this particular pizen. I have not got a single fly into any of the shallow dishes that are lying around baited with the exterminating fluid. It's a humbug.

If you know anything that will fascinate and kill flies by the million, do let us have it, and receive the endless gratitude of

## A THOUSAND HOUSEKEEPERS.

REMARKS.—The common "fly-paper" of the shops will destroy a great many; so will a tumbler of sweetened water, covered with paper with a hole in its centre. But the true way to keep flies out of the kitchen, is, to have as little as possible about that they can eat—then keep the room dark by closing the blinds, or by other contrivances, leaving a small space open somewhere to admit the light, so that when a fly does enter he will pretty quickly make for the light and pass out. The room need not be made so dark as to make the necessary labor there unpleasant. We are rarely troubled with flies in the kitchen, or in the horse stables.

SEX IN EGGS.—A correspondent of the *London Field*, talking on this subject, says: In all eggs, whether of poultry or pigeons, there is to be found an indentation, resembling the dimple in the chin often to be found in our own sex, in the round end of the egg. This mark will always be found directly on the top or to the one side of

the round end of the egg. If the breeder wishes to select eggs for hatching cock birds let him pick those having the dimple immediately on the top of the egg, and if for hens let him choose those eggs with the dimple to the one side.

## A PREMIUM FARM, AND THE MAN WHO OWNS IT.

We find in the *New Hampshire Journal of Agriculture* the following "statement" of the farm to which the Hillsborough North Agricultural and Mechanical Society awarded its first premium last fall; and in another column of the same paper, a brief history of the man who owns the premium farm. We put them together, and commend them particularly to the attention of young farmers.

The farm which I offer for premium, lies in the east part of Deering. It is quite level, and for the most part rather moist. It contains 165 acres, divided as follows: 36 acres mowing, of which 25 acres are arable; 84 of pasturing, and 45 of woodland. Cut about 35 tons English hay and three meadow. We usually break in the spring for planting, and plant two years—the third year sow down to grass—with wheat and no manure. We plow in the new manure, and put the old in the hill.

Our corn averages about 35 bushels per acre. Potatoes of late years, 125. We raise from 75 to 120 bushels of carrots, besides ruta bagas, sugar beets, &c.

We think roots very profitable to raise, and wonder that more farmers do not raise a few. We think one year's trial will insure a larger crop for the second. Farmers, try them.

We have underdrained some in one field, and think it pays well. At last we have learned how to reclaim our worthless bog holes, and make them the most productive of any acre on the farm.

The farm is well walled, and bushes kept down. When I moved on the farm, every acre of the field was covered with stone-heaps, from 25 to 40 per acre, and now not one is found in the mowing.

HEROD CHASE.

I would say a word to those that think farming is a hard and a slow way to make money. It is so; but it is a safe way. I will tell you how I began. I was bound out at the age of 14 years until I was 21 for \$100, and learn to read, write and cypher as far as the single rule of three, and learn the trade of a farmer. At 23 I married. At that time I had added \$200 more to the \$100. I moved home with my father-in-law, on to a farm of 100 acres, somewhat out of repair. I then purchased a pasture, for which I paid \$800, which brought me in debt \$500. I carried on said farm eight years, at the halves, giving him one-half of the income of my pasture for the income of one-half of his stock. At the expiration of eight years he died. From that to the present time, I have had three-fourths of the income, paying my mother-in-law one-fourth. During that time, I have improved the farm, kept the buildings in repair, attended meeting regular, always paid the printer in advance, and purchased a farm of 120 acres,

for which I paid \$1400. I am now out of debt, and have some money to let—besides having \$400 stock in the Central Railroad, as a permanent fund. I wish some of my good railroad folks would pity me enough to give me one free ride.

What I have saved, I have made from the farm. Try, young man, and do better than I have done. You can do it, only set yourself about it in good earnest; not say I *can't*—never say that until you *try*.

Enough, at this time. HEROD CHASE.

#### SAVE YOUR SEEDS.

There are many kinds of garden seeds, wanted in small quantities, that may be more cheaply purchased at seed stores than raised at home. There are others which every farmer or gardener may raise and save for himself. Provided the work is well done, the more that each one saves for himself the better; for he may not only secure any excellent or favorite variety, and be sure of having the genuine sort, but he may also be sure that his seeds are fresh, and not a portion of old mixed with new, as often happens when he obtains them from irresponsible sources.

Always select the best seed where the supply is abundant. If earliness is desirable in the variety, take those which ripen first. This will be necessary in order to maintain the character for earliness. The tendency is to run back, and this will be the result unless pains are taken to prevent it. Such selection will also afford a chance of not only maintaining, but improving the quality. The same care must be taken to secure any other point, as size, excellence of flavor, productiveness, &c. Always take the best.

There are some seeds which farmers pay considerable sums for, which they might as well raise for themselves. We do not allude to corn, wheat, &c., which should not only be home raised, but which should be as carefully selected for improvement as garden seeds, but to smaller seeds, such as carrots, for example. These may be had of excellent quality by setting out the finest roots, and saving the finest central bunches of seeds. Parsnip seeds are easily raised, and the field crop is valuable.

The seed of all crops, when ripe, and before they begin to scatter, should be cut, tied in neat bundles, distinctly marked, the name and date, and placed in a dry apartment. When quite dry they should be threshed or shelled, and neatly put up in cotton or paper bags, and placed beyond the reach of depredators.—*Country Gentleman*.

**SPRING WHEAT.**—Our correspondent, THOMAS J. FIELD, Esq., of Northfield, has sent us a head of spring wheat which is infested by a very small insect of the fly kind, which, he says, are on the wheat of every field he has seen. The winter wheat has escaped as yet. We have had no account of this from other sources, and hope that it will not become general, or prove destructive in any locality. He does not state that the wheat is destroyed by these flies.

#### GUNPOWDER.

A member of the British Parliament said, not long since, that the quantity of sulphuric acid used by a people was a pretty good index of their degree of civilization. It is somewhat so with gunpowder. The common supposition is, that, during a war, large quantities of gunpowder are used more than are wanted in times of peace. But this, we understand, is not the case,—and it shows how a state of war disturbs all the arts of peace, entering into their minutest ramifications, and affecting them in one way or another. Not a basket or broom, a plow or hoe handle, a steam engine or a pin or needle are now made without their price being in some way affected by the war in our land.

In the arts of peace, powder is employed in a hundred forms, and the aggregate consumption is very large, calling for an amount vastly greater than is demanded by all the armies in the world. These arts are now affected, many of them entirely suspended, and the consequence is, that less powder is used than when we are in a state of peace!

We have recently spoken with two or three powder-makers on this subject, whose opinions are all alike in relation to it. One of them stated that a single mine in Pennsylvania would consume more powder than all the regiments of New England.

What a comment upon the destructive tendencies of War! It not only tends to demoralize the people, but destroys life, devastates countries, crushes other arts, paralyzes the sciences and literature, and shakes the very foundations of our social and national existence.

*For the New England Farmer.*

#### NOTES AND INQUIRIES.

The spring, and indeed most of the summer, so far, was wet and cool, consequently vegetation was backward, yet crops in general look remarkably well. But little winter wheat is sown; spring wheat will be abundant. A large breadth was sown, and it looks very well. Other grain is also heavy; the yield will probably be as great as last year, the wheat crop will be greater. Corn will be rather light, unless we have a very favorable autumn. Fruit is scarce, except some of the smaller varieties. Currants and raspberries are plenty. I have as fine currants as I ever saw, growing on bushes set in the spring of 1859. Some strings have thirty full-grown ripe currants on them, and from twenty to twenty-five is the usual number. I suppose them to be the Red Dutch variety. I have also two varieties of White Currants, the White Grape, very fine, and a smaller variety of a yellowish color. Are they the White Dutch? One year ago last spring, I bought four currant bushes of a man calling himself a nurseryman, for which I paid him one dollar. He recommended them very highly,—

said they were the Red Grape, and the White Grape. They bear this summer, and prove to be very inferior fruit, probably some old native bushes which were begged or stolen, to supply orders. Others were equally cheated. Perhaps it will teach us better than to purchase trees of travelling, irresponsible vendors.

What will destroy slugs on pear trees? I have a few nice trees, two of them dwarfs, that are nearly divested of foliage by them.

L. VARNEY.

*Bloomfield, C. W., 7th Mo. 30th, 1861.*

REMARKS.—It is said that washing with whale oil soap will kill the slugs; we have never found any certain remedy except the thumb and finger.

#### THE TRADE IN TOADS.

None but Frenchmen, of course, would ever think of making a regular business of trading in these brown-coated gentlemen, and accordingly we find the trade flourishing in Paris alone. Toads, for some years, have been the indispensable allies of the French market gardeners, cultivating rich and moist grounds. Many of these men fill their gardens with them to get rid of a throng of insects injurious to the vegetables they have raised by laborious and scientific culture. Especially do toads attack and demolish the slugs and snails, which, in a single night, utterly destroy the commercial value of lettuce, carrots, parsnips, asparagus, and even early fruits. In having recourse to these singular auxiliaries, the French gardeners imitate their English brethren. A great portion of the vegetable supply is derived from the kitchen gardens in the immediate vicinity of that immense city, cultivated, it is said, by 35,000 persons. These gardens are a perfect marvel of laborious culture. You see sometimes acres and acres covered with hand-glasses. Richly manured, and sedulously tended, some of these garden spots are so managed as to yield five crops annually. Not only is there not a weed among them, but the vegetables are examined with lenses to detect mildew and fungi. Besides toads, which they pay six shillings a dozen for, they make use of fowls to destroy the aphides, rigging them with boots to prevent their scratching, and allow them the use of their bills. The price of toads is lower in Paris than in London; in the former city they are still sold, notwithstanding the demand, for about fifty cents a dozen, and many are exported to England. The dealers in this strange commodity keep them in the bottom of huge casks, into which they are constantly plunging their bare hands and arms, without showing the slightest fear of the liquid secreted by the toads which science has sometimes pronounced venomous. Busy little fellows these repulsive looking creatures are, and worthy of all possible encouragement and patronage.—*Exchange.*

WILLOW WARE.—The editor of the *Wisconsin Farmer*, in acknowledging a present of a willow basket, manufactured in that State, says that the soil of the West is the best in the world for growing willows.

#### THE DEW.

The following quotation from Dr. Wells on dew is highly instructive: "I had often smiled in the pride of half-knowledge at the means frequently employed by gardeners to protect tender plants from cold, as it appeared to me impossible that a thin mat or any such flimsy substance could prevent them from attaining the temperature of the atmosphere, by which alone I thought them liable to be injured. But when I had learned that bodies on the surface of the earth became, during a still and serene night, colder than the atmosphere, by radiating their heat to the heavens, I perceived immediately a just reason for the practice which I had before deemed useless. Being desirous, however, of acquiring some precise information on the subject, I fixed perpendicularly in the earth of a grass-plot four small sticks, and over their upper extremities, which were six inches above the grass, and formed the corners of a square whose sides were two feet long, I drew tightly a very thin cambric handkerchief. In this disposition of things, therefore, nothing existed to prevent the free passage of air from the exposed grass to that which was sheltered, except the four small sticks, and there was no substance to radiate downward to the latter grass, except the cambric handkerchief. The sheltered grass, however, was found nearly of the same temperature as the air, while the unsheltered was five degrees or more colder. One night the fully exposed grass was eleven degrees colder than the air, but the sheltered was only three degrees colder. Here we see the power of a very slight awning to avert or lessen the injurious coldness of the ground!"

#### CORN IN THE EAR.

A very intelligent Irishman tells the following story of his first experience in America:

I came to this country several years ago, and as soon as I arrived, hired out to a gentleman who farmed a few acres. He showed me over the premises, the stable, cow, and where the corn, hay, oats, &c., were kept, and then sent me to get my supper. After supper he said to me:

"James, you may feed the cow, and give her corn *in the ear*." I went out and walked about, thinking what could he mean? Had I understood him? I scratched my head, then resolved I would inquire again; so I went into the library where my master was writing very busily, and he answered without looking up, "I thought I told you to give the cow some corn *in the ear*."

I went out more puzzled than ever. What sort of an animal must this Yankee cow be? I examined her mouth and ears. The teeth were good, and the ears were like those of kine in the old country. Dripping with sweat, I entered my master's presence once more.

"Please sir, you bid me give the cow some corn *in the ear*,—but didn't you mean *in the mouth*?" He looked at me for a moment, and then burst into such a convulsion of laughter, I made for the stable as fast as my feet could take me, thinking I was in the service of a crazy man."

WHILE there is so much within us to make war upon, it is gratuitous to commence a war with exterior enemies.

*For the New England Farmer.*

### RETROSPECTIVE NOTES.

**CORN COBS AND COB MEAL.**—Such is the caption of an article in the July number of the *Farmer*, well deserving the attention and candid consideration of all farmers, and of those more especially who still continue to practice a mode of feeding, which was, a few years ago, much more common than it is now. I refer to the practice of grinding corn and cobs together, and feeding the meal; and it is because this practice is neither safe nor economical, but, on the contrary, often injurious, and always dangerous as well as wasteful, that, as it seems to us, this article by Mr. BASSETT, (see *N. E. Farmer*, July, page 301,) is well deserving of attentive and unprejudiced consideration. It deserves consideration, because it contains several sensible remarks upon a practice which has a bearing both upon the pecuniary interests of farmers and upon the comfort and health of their stock; and it deserves unprejudiced consideration, because, whether they are sensible of the fact or not, there are a good many who make it abundantly manifest either by tongue or pen, that they have very strong prejudices in favor of the practice which the writer of the article under notice has discontinued for very good and sufficient reasons.

Hoping that all concerned will give to the excellent article of Mr. BASSETT, (*N. E. Farmer*, May 25th, and July number, page 301,) such consideration or re-consideration as we have named, and that many, like Mr. B., may be converted from the error of their way of feeding, we feel as if we might do some little service, especially in the case of such as may be hard to be convinced, by submitting a few facts and considerations in addition to those of Mr. B., or in confirmation of the same.

The first noteworthy thing about the article under notice is, that the writer, Mr. B., does not belong to that class of farmers who, having once adopted some particular mode of practice, stick to it, right or wrong. Mr. B. says, "It used to be our custom to feed a considerable portion of our corn in the form of cob meal." This custom, however, he at length gave up; and among the reasons for this change Mr. B. names the following:

1. It is too expensive. The force of this reason would have been more manifest, if Mr. B. had stated what seems to be, by the general acknowledgment of those who have chemically analyzed cobs, the small amount of nutritive matter contained in them. Cobs, according to the general estimate, contain no more nutritive matter than wheat straw; and certainly, if all millers charged at the same rate for grinding corn and cobs together as that at which the "entirely honest" miller employed by Mr. B. charged him, it would, indeed, be too expensive to grind the cob with the corn. "The last time," says Mr. BASSETT, "that I had corn ground in the ear, I measured six bushels in my half bushel, which would not have yielded over three bushels of shelled corn, and carried it to a mill whose owner has the credit of being entirely honest. This was then passed through the 'cracker,' and according to his measure made seven bushels, for grinding which, I was charged forty-two cents, or twenty-four

cents for grinding the cobs." Truly may Mr. B. say that grinding cobs at this rate is too expensive, inasmuch as it requires no chemical analysis, but only a little common sense, to become convinced, that a bushel of cobs cannot be made, by mere grinding, six cents better than when unground; and it must seem very doubtful that a bushel of them is worth six cents in any form whatever.

At this rate of charging for grinding, the cost for grinding a ton would be about six dollars. Of this any one may satisfy himself by a little calculation. A bushel of cobs will weigh, on an average, about twenty pounds (20 lbs.,) and a hundred such bushels will make a ton, and at the rate of six cents a bushel, a ton will cost exactly six dollars. What unprejudiced, what judicious and well informed man would give six dollars for grinding a ton of cobs? There are, indeed, several other articles of fodder, of which six dollars' worth would go much farther than a ton of cob meal. And even if cobs could be ground at three cents per bushel, or three dollars per ton, we would prefer to have three dollars' worth of something else, and let the stock have access to the cobs in the crude state, in which form they will eat a few occasionally, and quite probably as many as will do them any good.

2. The second reason alleged by Mr. B., for giving up the practice of grinding corn with the cob is, that, in some cases, it produces constipation. He might have found in the records of the experience of others, if not in his own, instances of far more serious consequences than simple constipation, for there have been scores, if not hundreds of cases recorded, in which death was clearly attributable to the use of cob meal. And what wonder! Let any one examine a hard, fully matured cob, and he will find flinty, hard, sharp, glossy scales between the kernels, and adhering to the cob, which no common grinding can reduce to powder, or deprive of their sharp edge. These being, many of them at least, as hard and as sharp-edged as a knife, cannot go through the bowels of any animal without risk of producing wounds in the tender lining membrane, or irritation, or inflammation, either fatal or severe. And such results have actually taken place. Mr. S. E. TODD, author of "The Young Farmer's Manual," mentions cases in which streaks of blood were voided, and several instances of other injurious and even fatal effects—all clearly proved to be results of these hard, flinty, sharp-edged scales.

Did time and space permit, we might submit still a few other considerations as a supplement to Mr. B.'s article, and in furtherance of his benevolent purpose. Should occasion seem to require it, the subject will be resumed.

MORE ANON.

**HOW TO CUT GLASS WITH A PIECE OF IRON.**—Draw with a pencil on paper any pattern to which you wish the glass conform; place the pattern under the glass holding both together with the left hand, (for the glass must not rest on any plain surface,) then take a spike or piece of iron, heated, and pass it slowly forward and the edge will immediately crack; continue moving the iron slowly over the glass, tracing the pattern, and the clink in the glass will follow at the distance of

about half an inch in every direction, according to the motion of the iron. It may sometimes be found requisite, however, especially in forming corners, to apply a wet finger to the opposite side of the glass. Tumblers or other glass may be cut or divided very fancifully by similar means. The iron must be reheated as often as the crevice in glass ceases to flow.—*Scientific American.*

#### CARBONIC ACID GAS.

Carbon is found in a variety of forms. Common charcoal, soot, lampblack and the diamond, are all forms of this valuable and important element. Wherever carbon is found in minerals, it always exists as a product—mediate or immediate—of organic action. The deflagration or decay of wood, and the putrefaction and decomposition of all organized structures which have acknowledged the vivifying principle of life, produce carbon, which, combining with the oxygen of the atmosphere, forms the substance known as carbonic acid. This is a heavy gas—extinguishes fire, and destroys animal life. “If an animal attempts to breathe it pure, there is a spasmodic closure of the glottis, and the animal dies as speedily as if strangled with a cord. If breathed when diluted with ninety per cent. of air, it acts as a narcotic poison, producing sleep, torpor and death.”

Carbonic acid and steam were used in the fire “Annihilator” to extinguish flame. There is a small portion of carbonic acid in the atmosphere—viz: One gallon diffused through two thousand of air. A man exhales about twenty cubic feet of carbonic acid per day, which would vitiate or spoil four thousand cubic feet of air each day, or equal to all that is found over a space of fifty-six square feet to the top of the atmosphere annually. Water has a powerful affinity for this gas, and absorbs large quantities of it. It then acquires new properties, and becomes a solvent of a great number of minerals. It exerts a powerful influence on vegetables at all stages of their development.

FLAX IN CANADA.—The *Galt Reformer* says—“When recently in the township of Waterloo, we were very much gratified to notice that many farmers are entering extensively into the cultivation of flax. In travelling a short distance, we noticed a number of different fields, all of which appeared to be in a very prosperous condition. The fibre of the flax is very fine, and when growing in the fields its appearance is very pleasing. Its flower is a light blue color, which combined with the light green stalk, gives the field more the appearance of a flower garden than of being devoted to agricultural purposes. Some fields sown with millet are also to be seen a short distance from Galt. Our agriculturists are entering upon the higher branches of farming with enterprise and spirit. May they reap that reward which their industry and perseverance deserve.”

*For the New England Farmer.*

#### THE SEASON, CROPS, &c.

The season, since the first of May, has been all that the farmer could possibly desire, and there never was a better prospect of an abundant harvest of every kind of crop, except fruit, than there is at the present time. The hay crop has been secured in good condition, and is better by one-third at least, both in quality and quantity, than it was last year; the corn in this vicinity never was heavier, while the other grain crops are equally good. If the season continues favorable for the potato, that crop will also be unusually large. Fruit is not “nearly” but a complete failure, as far as my observations have extended. Our farmers have given an unusual amount of their time and attention, this season, to the cultivation of every kind of crop common to the New England States. I think they have profited very much by a hint which you gave them in one of the spring numbers of the *Farmer*, and not only have they planted a few “extra hills” but extra acres, which is conclusive evidence of their willingness to contribute from their farms to the support of the government, although circumstances may prevent a contribution from those veins through which flows the blood of patriot fathers.

I have often wondered why your subscribers and readers in this town did not contribute more to the columns of your valuable paper. You have among your subscribers in this place many intelligent farmers, who are capable of imparting much useful instruction; and to such let me say, you can, (if you will,) do much good to the young farmer by contributing to him through the columns of the *Farmer*, a liberal share of the knowledge which you have acquired by your farming operations in past years. In giving your experience you are not injured, while others may be very much benefited. I always read the communications from our farmers and mechanics, which appear in the columns of the *Farmer* from time to time, with much interest. I have also experienced much pleasure in the perusal of articles from those intelligent females who occasionally contribute to the columns of your paper. Polly, of Enfield centre, has contributed many articles to the columns of the *Farmer* which have been of a very interesting and intelligent order. I hope that now she has assumed the name of Mrs. Mary C. French, and become the wife of a young, industrious and intelligent farmer, her domestic duties will not prevent her giving us an occasional treat from her pen.

Will Mr. Herod Chase please give us his age, so that we can give something of a guess how long he has been getting *rich*; if he has done it all in twelve or fifteen years by his own industry, he has done exceedingly well, but if he has been thirty or forty years in doing it, with a good lift from a father-in-law to begin with, he has not done anything extra, after all.

W. C. A. CLINTON.

*Claremont, N. H., Aug., 1861.*

REMARKS.—Thank you, sir. You have set those “intelligent people” of your town a good example, which we hope they will follow. Our interests are common, and therefore a free interchange of our



opinions and modes of practice must be useful to most of us. Let the motto be,—“Farmers! write for your paper.”

### THE SONG OF THE RAIN.

Lo! the long, slender spears, how they quiver and flash,  
Where the clouds send their cavalry down;  
Rank and file, by the million, the rain lancers dash,  
Over mountain, and river, and town;  
Thick the battle drops fall,—but they drip not in blood;  
The trophy of war is the green, fresh bud;  
O, the rain, the plentiful rain!

The pastures lie baked and the furrow is bare;  
The wells, they yawn empty and dry;  
But a rushing of waters is heard in the air,  
And a rainbow leaps out in the sky.  
Hark! the heavy drops pelting the sycamore leaves,  
How they wash the wide pavement and sweep from the eaves!  
O, the rain, the plentiful rain!

See the weaver throws wide his one swinging pane,  
The kind drops dance on the floor;  
And his wife brings her flower-pots to drink the sweet rain,  
On the step by the half open door;  
At the time on the skylight, far over his head,  
Smiles the poor, crippled lad on his hospital bed;  
O, the rain, the plentiful rain!

And away, far from men, where high mountains tower,  
The little green mosses rejoice,  
And the bud beaded heather nods to the shower,  
And the hill torrents lift up their voice;  
And the pools in the hollows mimic the flight  
Of the rain, as their thousand points dart up in light;  
O, the rain, the plentiful rain!

And deep in the fir wood below, near the plain,  
A single thrush pipes full and sweet;  
How days of clear shining will come after rain,  
Waving meadows and thick growing wheat!  
So the voice of hope sings in the heart of our fears,  
Of the harvest that springs from a great nation's tears;  
O, the rain, the plentiful rain.

*Dwelling in London Spectator.*

### AGRICULTURAL FAIRS.

The California State Agricultural Society holds its annual fair this year at Sacramento, September 16—21, and offers a long list of prizes, some of which are much higher than for the same grades in the Eastern States.

“Committees are especially instructed not to award a premium to an unworthy object, in any department, though there be no competition. The judges on animals will have regard to the symmetry, early maturing, thorough breeding and characteristics of the breed which they judge. They will make proper allowances for the age, feeding and condition of the animals, especially in the breeding classes, and will not give encouragement to over-fed animals.”

Some other good rules are made, such as should be more rigidly adhered to by all societies. For instance:

“The horse of all work should be between fifteen and sixteen hands; quick, lively ears; broad between the eyes; round barrel; short loins; well up in the shoulder; deep chested; square quarters; flat legs, short between knee and pas-

tern, and hock and pastern; hind legs well under him; speed equal to eight miles on the road, and at least three miles at the plow; with sufficient blood to insure spirit and endurance; and no horse or mare in this or any other class will be allowed to compete for a premium unless free from any disease or blemish which can be transmitted to posterity.

Exhibitors of implements and machinery will be required to label each implement or machine with the name of exhibitor, name of machine, its use, and price at which sold.”

*For the New England Farmer.*

### MORE ABOUT THE THRUSHES.

In the *Farmer* of August 3d is the criticism of a Vermont correspondent upon “J. A. A.,” who he says “has something to learn about the thrushes.” So thought I, when I read the views of this interesting bird family, which he presented evidently as the views of others, rather than as the fruits of his own observation in the woods, where most of these species of birds dwell, breed and have their homes during the summer. And when I read the communication of the Vermont correspondent, I said that he has something to unlearn and “much more to learn about the thrushes.”

Having from the days of early boyhood been a studious observer of birds, and especially of the thrushes, which have ever been great favorites with me, perhaps I may venture to hope that I can do something to set the readers of the *Farmer* right on this interesting subject. Let me premise by saying, however, that I, too, “have something to learn on this subject,” for it is not easy to learn everything about anything; but what I have learned of the thrush family of New England, I deem biographically correct as far as it goes, according to my observation.

The Wood thrush, *Turdus melodus*, of Wilson, and *T. mustelinus*, of Gmelin, Latham, Vieillot, Nuttall, Audubon and Bonaparte, and *Merula mustelina*, of Richardson, is stout in form, of a cinnamon brown on the head, becoming rufous on the back, the rump and tail being olivaceous, light below, marked with blackish spots, sharply defined. Its length is about 8 inches, a little more or less in different specimens. My attention was early attracted to this bird of retiring and of somewhat solitary habits, on account of its exceedingly sweet and melodious notes, greatly surpassing those of any other song bird of the field or forest in New England. It has been called by some the American Nightingale, *Philomela lusciniæ*, of which Milton said,

“O, nightingale, that on yon bloomy spray  
Warblest at eve, when all the woods are still.”

So of the Wood thrush; it sings sweetest at early dawn or at eve, when other song-birds are mute. From some tall tree in the dark deep forest it pours forth its clear, shrill and sweet harmonious notes which have been compared to the double tonguing of a flute. Of a dark, cloudy misty day in the last of May or in June, I have often listened with delight quite as indescribable as are the mellifluous notes of this bird to one who has never heard it sing.

It seems to avoid the haunts and homes of

men, and is shy. It was a long time before I enjoyed the sight of one of these birds though often on the look-out. Wilson, remarking upon the difference in the richness of the notes of the Wood thrushes, says, "I remember one bird, whose notes I could recognize on entering the woods where it dwelt. It usually perched among the topmost boughs of the white oak of a glen, where it poured out its sweet and rich melody, to which I often listened until night-fall, till the fire-flies began to sparkle about me. But alas, in the pathetic language of the poet—

"One morn I missed him on the accustomed hill,  
Along the vale and on his favorite tree—  
Another came, nor yet beside the rill,  
Nor up the glen nor in the wood was he."

I was never more charmed by these songsters than one night preceding the Fourth of July, several summers since, when my friend, Mr. French, allowed me to tarry with him on Mount Holyoke over night, where, in the deep glens and gorges of that mountain range, the Wood thrushes seemed to be at home, both at late eve and early dawn. Mr. Kingsley's exquisite organ-playing in Northampton on the Sunday following that night, was not to be compared with the vocal concert I enjoyed in that retired retreat.

The notes of this song-bird have been rendered as follows: *eh rrehu 'vrhehu*, then varied to *'eh villia villia*, *eh villia vrhehu*, then *eh velu villiu*, high and shrill, clear, flowing and silvery as a sweet-toned bell. Said the late Dr. Peabody, "of all the voices of summer, there is none so thrilling, particularly when heard as the shadows of night are falling, and amid scenes of deep repose."

It builds its nest a little above the ground upon a shrub or bush, and like the robin, *T. migratorius*, uses mud in the structure thereof. The eggs, four or five, very nearly resemble those of the robin, being of a greenish blue, and free from spots.

The Hermit thrush, *Turdus solitarius*, of Wilson, *T. palassii*, of Cabanis, *T. Swainsonii*, of Audubon, Bonaparte and Brewer, *T. minor*, of Gmelin and Nuttall, *Merula solitaria*, of Swainson and Vieillot, is of light olive brown above and of buff below, marked with spots of olive brown, and is about  $7\frac{1}{2}$  inches long. Superficial observers have often pronounced it a variety of the Wood thrush. The habits and appearance of the Hermit thrush somewhat resemble those of the Wood thrush. It lives wholly in the woods. It has a low, musical note, not remarkable for richness or sweetness of quality.

It builds its nest a little above the ground, on the branch of a tree or shrub, and lays four or five eggs of a greenish blue, marked toward the large end with specks and blotches of olive.

Wilson's thrush or Veery, *Turdus Wilsonii*, of Bonaparte and Nuttall, *T. minor*, of Gmelin, *T. mustelinus*, of Wilson, *T. fuscescens*, of Stephens and Gray, and *Merula minor*, of Swainson, is of a reddish-brown on the head and neck, beneath whitish, marked with spots of lightish brown. Length about  $7\frac{1}{2}$  inches. This species is known from the others by the indistinctness of the spots beneath; and like the preceding species it is fond of solitude. It is frequently seen along the borders of woods, and brooks covered with shrubs, also in bush pastures of old fields. It is

most musical at early dawn and after sundown. Its notes are soft and silvery, and exceedingly pleasant to the ear of one of a pensive turn of mind. They come very far short, however, of the richness of the melodious notes of the Wood thrush. The notes of Wilson's thrush have been written as follows: *'rrehu*, *'vrrehu*, *'vrrehu*; sometimes *vea vea*, *'vrrehu 'vrreha*, *vehu*, running up till they become shrill and quick at the close in the first phrase, but from high to low, and terminating slender and slow in the latter; another variation seems to be *'ve vea*, *vehurr*, ascending like a whistle. The song of another has been expressed by the following phrases; *'ve 'villill 'tullull 'tullul*; repeated with variations; *ve villillil villill*, *villill*; then, *villillil villillil*, *tullillil tullillil*, the whole delivered in a silvery, shrill, hollow sound, being very agreeable to ears attuned to Nature's harmony. Occasionally he utters a note represented by the words, *queah*, *queah*, and at other times *y'ewo*, *y'ewo*, may be heard.

This species builds a nest in a low shrub or bush, and the female lays four or five eggs of a greenish blue, without spots, resembling the eggs of a cat-bird. A pair commonly raises two broods in a season.

The Olive-backed thrush, *Turdus solitarius*, of Wilson, *T. olivaceus*, of Giraud, *T. Minor*, of Gmelin and Vieillot, and *T. Swainsonii*, of Cabanis, is distinguished from the foregoing species by the uniform dull olivaceous shade of its upper parts, its throat and breast being more reddish than the others which have been named. Its length is about 7 inches. This species is quite common, but as it possesses no extraordinary qualities nothing further need be said here of its general appearance or song.

Besides the species named there are the Golden-crowned thrush or oven-bird, the Ferruginous thrush or brown thrasher, *Turdus rufus*, the American robin, *T. migratorius* and the Cat-bird, *T. felivox*. These have all, however, been removed from the genus *Turdus*, except the robin, by later ornithologists.

I have thus attempted briefly to present some views which observation and acquaintance with these birds, their habits and songs, have furnished me. I do not claim to have learned out on this subject, but trust that in the main the views here presented will be found to correspond with Nature. If the translator has failed to give a literal rendering of this section of the great volume of Natural History, let the errors be pointed out and the emendations furnished for the benefit of the readers of the *Farmer*.

ADOLPHUS.

#### VERMONT STATE FAIR.

The Eleventh Annual Exhibition of the *Vermont State Agricultural Society* will be held at Rutland, on Tuesday, Wednesday, Thursday and Friday, September 10, 11, 12 and 13, 1861. We think our friends in Massachusetts and New Hampshire may make a profitable and pleasant visit to Rutland on this occasion. They will find the Vermonters intelligent in their business and hospitable at their homes. Those who have not visited that section of New England will find a look at the scenery, farms, &c., quite as agreeable

as the exhibition itself. We hope a large representation will be present from both these States, and that our good friends of the Green Mountain State will make their show strictly an *agricultural* one, embracing, and giving strict attention to every other department of the farm, as well as that of horses, in which they excel so much.

The officers of the Society for the present year are:—*President*, H. Henry Baxter, Rutland; *Vice Presidents*, Edwin Hammond, of Middlebury, J. W. Colburn, of Springfield, Henry Keyes, of Newbury, John Jackson, of Brandon; *Recording Secretary*, Charles Cummings, of Brattleboro'; *Corresponding Secretary*, Daniel Needham, of Hartford; *Treasurer*, J. W. Colburn, of Springfield; *Additional Directors*, Frederick Holbrook, of Brattleboro', H. S. Morse, of Shelburne, D. R. Potter, of St. Albans, Henry G. Root, of Bennington, E. D. Bush, of Shoreham, David Hill, of Bridport, John Gregory, of Northfield, Elijah Cleveland, of Coventry, Nathan Cushing, of Woodstock, L. B. Platt, of Colchester, George Campbell, of Westminster; *General Superintendent*, Henry S. Morse.

#### EARLY LETTUCE AND ONIONS.

Competition is as much an element of success in agriculture as in any other employment. A newspaper which should aim merely at chronicling the news of the day, without exhibiting any enterprise or tact in securing the freshest intelligence, and being among the first on sale, would meet with moderate success. None the less true is it of the husbandman—who raises his produce for the market—a day's difference in the time of sale may make a difference of one half in the prices received. "First in the market," then, should be the motto of every farmer. By sowing the seed in the fall, lettuce and onions can be had much earlier in the season than from spring planting. About the first of August a good spot of ground should be chosen, and, after being well prepared, sown thick with seed. In the beginning of September another bed of the same description can be made. They should be kept free of weeds, thinned out to some extent, and when cold weather comes, covered with a thick layer of manure or litter of some description. When the usual time for spring gardening arrives, these plants will be found to have an advanced growth of several weeks, and will be ready by March or April for the market or home consumption.—*Exchange*.

**AN EXTRAORDINARY HAWK.**—Mr. W. Jardine, draper of this town, has been for some time in possession of a hawk. A few months ago, she laid two eggs, soon after which she sat upon them; her own eggs, however, were subsequently removed, and two guinea fowl's eggs placed in the nest. The hawk sat upon them the usual time, when to the surprise of all, two fine chickens were hatched, with which their step-mother appeared highly delighted, and over which she

continued to watch with all the tenderness of a natural parent; the only thing at which she appeared uneasy, and evidently showed surprise, was the fact of her young "picking up" the moment they were hatched, and many were the efforts she made to induce them to offer their bills, that she might cram in pieces of raw meat. We consider this circumstance well worth the attention of the naturalist.—*Dunstable Eng. Chronicle*.

For the *New England Farmer*.

#### THE ARMY WORM.

I noticed a few days since, for the first time, the appearance of the army worm in Danvers, in a piece of barley belonging to Mr. Benjamin F. Porter, of Danversport. They were first seen in great numbers through the entire field of several acres climbing up the stalks of the barley, eating the blades and cutting off the heads of the grain. The day after these worms were discovered the barley was mowed in order to preserve it when they dropped to the ground, throwing themselves into a coil, a habit of the insect when disturbed. Many of them soon commenced a march for the neighboring fields and gardens, while others blindly pushed forward a column towards the highway over a stone wall, where they were crushed by travelers on the road. But the main body marched to the adjoining gardens and enclosures, where the proprietors were waiting to receive them in their entrenchments, which had been thrown up a foot wide and two feet deep. The worms, as they fell in their advance into the trenches, were assailed in various ways by eager combatants, some spreading over them lime, tar or ashes, while others resorted vigorously to pounding them. In this way countless numbers of them were destroyed. The rear guard of the army of worms, composed principally of those of smaller growth, [young recruits probably,] kept in the field where they were picked up by a troop of fifty young red winged black-birds; and I am pleased to record the fact of these birds feeding upon the army worm, as it furnishes us with a new argument in favor of the protection of our birds. I also noticed the robin feeding upon these vermin. As these birds are considered by many very mischievous, let us remember before we destroy them, that they are our faithful allies in our war against the army worm, perfect Zouaves, show no quarter, and quietly and effectually dispose of their captives in a way man cannot. I noticed this morning that the few remaining worms were working their way into the ground, probably to pass into the chrysalis state. But of this I know nothing, as the habits of the army worm are unknown to me as well as to my neighbors, and my books as yet afford me no information. It is very desirable that the new edition of Dr. Harris's "Insects of Massachusetts Injurious to Vegetation" should contain a full account of the habits of this destructive insect before it passes through the press, and that the *New England Farmer* should be furnished with such facts in relation to it as would be useful to its numerous readers.

Since the above was written, I have visited the field infested with the army worm, and find by digging a few inches into the soil, the worms are

rapidly passing into the chrysalis state, which will enable me shortly to furnish the editor of the *N. E. Farmer* with the insect in its several transformations, if he desires it. S. P. FOWLER.

*Danvers Port, Aug. 7, 1861.*

REMARKS.—We are obliged to our faithful correspondent for this letter, and for the promise to furnish us with further information on this important subject. We should have been glad to publish it last week, but when received our paper was so far made up that we could not find a place for it.

#### TO KEEP GRAPES FRESH.

The following is a French method. Glass bottles are placed upon simple wooden racks about the outside of the fruit-room.

"Cut the bunch of grapes on the trellis at the end of the month of October, or even later, if it be possible. Let it be attached to a piece of the branch, including three or four joints below the bunch and two above. Put a little grafting wax on the upper end of this branch, and introduce the lower end into a vial filled with water. The mouth of the vial may be kept open and the water unchanged; add four grains of powdered charcoal to each vial. This addition keeps it pure during a whole year. It is not necessary to fill up the vials, the evaporation not lowering the level of the water more than two or three fractions of an inch in the space of six months. When the bunches of grapes are arranged as mentioned, we have nothing more to do, than, from time to time, to cut away the berries that are rotten. It is essential that the temperature of the fruit-room should not descend below zero."

The editor of the *American Farmer* says that this plan of preserving the grape may be very successfully practiced with other fruits ripening in autumn, though not with a probability of preserving them fresh quite so long as the grape. He has seen fruit of the Algiers winter peach kept fresh in a vial full of water, but unsealed, for a long time. The peaches, together with the leaves, were not detached from the twig. This is worthy of trial, and the time to put it in execution will soon be at hand.

#### A CURE FOR GLANDERS.

As it may be of service to some people, I give you an account of a cure I made of glanders a few years back. My horse was a valuable one, and had had the glanders some 12 or 18 months, and so badly did he have it, that I offered to sell him for \$15. He could be heard to breathe from fifty to one hundred yards every breath; indeed, we could not sleep well, so distressing was his breathing, the stable being close by. I determined to kill or cure, so for experiment: On Monday, I gave him as much dry calomel as would lay on a ten cent piece; on Wednesday, I did the same; on Friday, I gave it again; on Saturday, he could not bite a pumpkin; on Sunday morning, I looked in his trough, and found at least one quart of old matter scales, with a mixture of matter, all in a lump. From that time he breathed easy, and never was troubled again with the glanders; it

was a perfect cure. I worked him in my buggy for two years after, and traded him as a sound horse, to a neighbor who was familiar with his disease all the time he had it. He was slightly salivated—was as good as before. A neighbor tried the remedy with equal success.—*Correspondent Cotton Planter.*

#### EXTRACTS AND REPLIES.

##### CALIFORNIA BEER SEED—INSECTS ON WHEAT.

You have doubtless, in common with most of your readers, heard of or seen the substance known as "California Beer Seed," or "Boston Yeast." A very extensive ignorance prevails in this region as to what this useful substitute for yeast really is, and I wish to address a few inquiries to you in respect to it, hoping that many may be enlightened through the columns of your valuable journal. Is it known where the plant, (if it is one,) originated, or where it was discovered? Admitting it to be a vegetable, are the conditions of its growth and perfection understood? It is said by some not to be as healthful as ordinary yeast: are you aware that this is true or otherwise?

If, sir, you or any of your many readers can answer these inquiries, or give any information on a subject on which, at present, very little is known, you will greatly relieve the mind of a

PERPLEXED HOUSEKEEPER.

P. S.—Is the reddish brown insect preying on the wheat in this region the true "weevil?" I am desired to inquire your opinion as to the best method of treating the crop after the insect gets into it. Many farmers here have mowed down the grain, hoping to save the berry from the maggot, but the prospect is that very little, if anything, can be obtained in that way.

*Worcester, August 1, 1861.*

REMARKS.—We know nothing of the "California Beer Seed." An article in another column gives some information with regard to insects on wheat.

##### MOWING MACHINES.

I rather think, from remarks that I have heard from A, B and C, about the use of mowers in the cutting of grass, that the popular opinion is with you. From what I have seen of the use of these implements, for ten years last past, I am of the opinion, when properly constructed and properly guided, that full one-half the expense of cutting grass can be saved by them. I am not particular as to what machine shall be preferred, though I have seen no one that did the work any better than the Buckeye. The proprietor of this machine I do not know. J. W. P.

*South Danvers, Aug. 5, 1861.*

##### EXPERIMENTS WITH MUCK.

I have read a great deal about experiments with muck, and now I will give those I have made. In the fall of 1859 I spread 60 loads on two acres of upland grass ground, which had so run out that it bore nothing worth harvesting; now it gives 1½ ton per acre. The muck which I used was taken out of a hollow where leaves of the woodland above, and decayed wood, &c., had

been collecting for ages, which I think makes the best of muck. I also tried the same muck on a subsoil of clay, for potatoes. I plowed the ground and harrowed; on one part of the field I used fine horse manure in the hill, on the other part I used muck, and the potatoes were much more numerous, larger and better for the table than those where I used horse manure. I think there is great difference in muck. That which is composed of decayed vegetation, in low places, in woodland, is far preferable to that taken out of swamps.

C. H. ROOD.

West Windsor, Vt., 1861.

#### MOWERS—CORRECTION.

I find two mistakes in the last *Farmer* in the report I sent you of the mowing trial at Vernon, viz:

The Pony should be 162 pounds draft, instead of 225, as you have it; you have omitted the two-horse 4 feet cut, draft 225 pounds, of Woods.

CHARLES T. PARSONS.

Northampton, August 5, 1861.

#### IRON GRIST-MILLS.

In the *Farmer* of March 5, 1859, you insert a plate of an iron grist-mill. Can you give me any information in regard to the success of the mill, durability, cost, &c.? I wish to purchase a mill to be propelled by water power.

Sutton, July, 1861. B. L. BATCHELLER.

REMARKS.—We have no information on this matter that would be valuable to you.

#### STRAWBERRY CULTURE.

The last week in August is a good time to transplant strawberry plants. A small piece of land, and a little labor bestowed upon it by the women—if the men cannot attend to it—once or twice a week, will give a family of six or eight persons a liberal supply of this delicious and wholesome fruit. None need be without them who have a square rod of spare land, as the plants are hardy, and only need to be kept free from weeds, and supplied with plenty of water. There is no necessity that the land shall be made very rich. Soil that will produce good corn will bring good strawberries. Everybody has soap suds, and most persons in the country have wood ashes. Let the suds be applied freely in the early part of the season, say until the fruit has fairly set, and then continue with water that has been standing through the day in the sun. Once a week scatter a little ashes between the rows and rake it in, and if Heaven sends sunshine and warmth, a plentiful crop will be the result.

There is no secret about raising strawberries. Some persons are deterred from cultivating them because they think some peculiar process must be observed; but there is no need of this. The process is as simple as that of planting potatoes, as they will grow, and do well, under any fair

treatment, where they can have plenty of moisture. But to be definite we give the process of "Mrs. Baker," of Manchester, N. H., as we find it detailed by her in the *Journal of Agriculture*. She says:—"Late in the fall, after all the harvesting is done, I dig up my old vines and throw them into the hog pen. Then I spade the ground six or eight inches deep. Then make beds three feet wide and two feet alleys: set the most thrifty young plants across the bed, ten plants in a row, and rows about six inches apart. Then cover them with leaves from the forest, and the work is done, until spring. In the spring I sprinkle ashes over them, not disturbing them at all. As soon as the crowns begin to show themselves above the leaves, I water them every morning, for a while. Then again in bloom. Then at graining of the fruit. I picked eighty quarts of big strawberries from a small patch of about one rod and a quarter."

Her method is good one, and a considerable degree of her success is undoubtedly derived from the liberal watering they receive. The young plants which she sets are probably the runners which have gone out from the old plants and taken root.

#### THE DEAD SEA.

One's first feeling, indeed, on gaining the beach and looking out on the vast expanse of its rippling waves dancing brightly in the sun, and reflecting the glorious blue of the cloudless heavens, is one of surprise at finding so little to distinguish it from any other lake or sea. There can be no doubt, however, that much of the pleasing impression thus produced, is due to the fact that after riding for hours beneath a broiling sky and over a burning soil, the very sight of water affords an enjoyment of the intensest kind. It is necessary only to stand for a little while by the side of that sea, and to contemplate the depressing loneliness and desolation that reign around, in order to realize the character that truly belongs to it. Not one solitary skiff sails that sea—not one solitary fish swims in its waters—not one solitary habitation, far as the eye or telescope can range, can be descried within sight of its shores—no sustenance for either beast or man, neither grass nor grain, does the sterile region by which it is encircled, yield; and yet this is the very region that was once the paradise of the land. Truly, "Sodom and Gomorrah and the cities about them are set forth for an example, suffering the vengeance of eternal fire." And yet sterile and dreary as is even the northern end of the lake, the aspect of the country around the southern shore is more repulsive still. It is, therefore, literally "all the plain," from the one extremity to the other, which God has overthrown.

IMPROVEMENT IN STOCK.—It is stated that in 1839 the average weight of horned beasts from Ireland, sold in the London market, was 640 pounds; the present year the average is 736 pounds each.

far better job of it than we could with wheat stubble, or other ground that had lain twelve months without being plowed. But the most important advantage of all is that when the barley is put in about the first of September, all the scattering grains of oats that are in the ground start and grow up with the barley, thereby helping to cover the surface of the whole field before the hard weather sets in; and when that does occur, the depth, &c., you may sow all your seeds at improper depth, while if you, under the same circumstances, sow broadcast, some of your seed will be pretty sure to be right.

#### THE SEASON AND CROPS.

Since we last spoke of the season and the condition of the crops, some four weeks since, we have had rain at different times,—first, in slight and gentle showers, and then in a drenching, easterly storm, which saturated the earth, filled the springs, and is now making the streams run merrily again. Whether this rain is to save the *potato crop* is uncertain. In all this region the vines of many of those early planted had been seriously checked by the sharp drought, and were more or less wilted, while some had altogether ceased to grow. The later planted crops still retain green and growing vines, and the plentiful rain may yet help them to mature a good yield. We hope this may be so, as, if “bread is the staff of life,” the potato has become almost as indispensable to our people. In favorable seasons, it is cheaply raised, is wholesome, may be cooked in various forms, and even the sick can partake of it when most other kinds of food would be rejected.

These latter rains will not only aid the second *hay crop*, which is now being cut in warm and rich spots, and in later localities will be quite abundant, but they will essentially promote and sustain the fall feed, and keep up the supply of milk until late in the season.

The drought rather seriously affected the *Spring and Winter grains*, so that this crop will be depreciated to one-third less than that of last year, in this State. We hope our correspondents in New Hampshire and Vermont will inform us of the state of these crops in those States.

The *Indian corn* crop now appears very promising—the wind in the late storm blew it over somewhat, but it is righting up again under the warm suns that have followed. With two or three weeks more of hot weather, and the absence of early frosts, there will be a magnificent harvest of this prime crop,—the glory of our New England harvests.

The *fruit* crop will *not* be an entire failure. Many orchards have a few scattering *apples*—very few, we confess. During recent rambles, however, we have seen many trees with good crops on them; in one small orchard, nearly every

tree was full, and the fruit appeared well. There are a few quite ordinary *peaches* in Boston market,—but scarcely one to each individual of the population. Notwithstanding the sweeping destruction of this delicious fruit, we hope all who have suitable places will plant a few healthy trees, as we shall undoubtedly have peach seasons again, as favorable as those which are passed.

On vines that were laid upon the ground and protected, there are now some fine *grapes*, from which we may gather fruit if frosts do not overtake them.

*Cranberries* are quite abundant in the meadows. On one or two pieces we find the cranberry worm destroying the berries, and on lands that cannot be flowed there seems to be no way of interrupting its progress. We are not certain whether the egg from which the worm proceeds was deposited in the blossom or upon the berry itself. Those infested begin to turn red quite early, and upon opening them are found nearly hollow, the flesh or pulp of the berry having been eaten, and the skin left fair and whole with the exception of one small puncture, made for the deposit of the egg, or for an air hole.

We have two or three square rods growing on high land, the vines of which are filled with splendid berries, and they are considerably earlier than those we have recently looked at in the meadows. The worms are among them, however, and may yet destroy the crop. The promise now is, that there will be a bushel to the rod—not a large crop, but a fair one for a three years' plantation. The worms leave the berries about the 15th of August, but what form they assume then, or where they go, we are not certain; we suppose, however, that they do not enter another berry, but enter the ground, and emerge sooner or later in a winged form.

The *root crops* that came up well, are now growing finely, and will be so sustained by the late rains as to give an average product.

Finally, as a whole, the harvest already secured, including the hay crop, has been more than an average one in all this region. At the West, we learn that the wheat crop was heavy, and has been favorably secured. We must wait in hope for the great Indian corn crop, and the indispensable potato. While our beloved country is distracted by a destructive war, diverting labor from its accustomed channels, and at the same time demanding an extraordinary amount of food, the season has been propitious, so that the farmer has been able to reproduce the prime necessities of life in profusive abundance. Let us, then—while we cherish no hatreds, and seek no revenges against our erring brethren—fight for liberty and union as long as our hearts have motion, or our arms power, and prove to the world that a

government based on the immutable principles of Justice and Equality cannot be overturned by wicked and designing men, either at home or abroad.

*For the New England Farmer.*

### THE MILK BUSINESS.

Since the commencement of the railroad era in this country, the traffic in milk has become a business of great importance. The inhabitants of cities and large towns are supplied with new, sweet milk—brought to their doors—for a price so low that very few are obliged to do without this nutritious article of food. Farmers who live within forty or fifty miles of a city, and near the line of a railroad leading to it, are giving particular attention to the production of milk for the market; and as a general thing, they find it more profitable than any other branch of farming. By selling milk the labor of the farmer's wife is very much lightened, which is a fact of no small importance among our delicate American women.

But there is one discouraging feature in the milk business which ought speedily to be removed. I refer to the length of time which many farmers have to wait before receiving pay for their milk. Very frequently they have to wait from two to six months, and sometimes a year or more, to have their bills cashed. To those farmers whose income is but small, these long credits are sometimes really distressing. I would like to ask the milkmen if there is any real necessity for this tardiness in settling accounts? If such delay is unavoidable, then we farmers must "grin and bear it;" but it seems to me, and many others, that there is no need whatever that credit should be given for a longer time than one month.

The consumers of milk buy it in small quantities from day to day, and the indebtedness of each one at the end of a week or month is small. If this small sum was promptly collected from each individual every month, the producers of milk could have their dues; but I fear that the milkmen are often negligent in collecting these small bills, and that after they are collected, much time is allowed to slip away before the amount is paid over to those to whom it mostly belongs. Is it not so, brother farmers? And cannot something be done to remove this great nuisance and wrong? Farmers are usually very quiet men, and do not like to "make a fuss," but in a case of this kind, if they would *all* say the word, and pull together, the change would come often and regularly into their pockets. It is not enough that farmers are obliged to wait so long for their pay, but recently, on some roads, milk trains are run on the Sabbath, and the milk must be carried to the depot Sunday morning. If the farmer refuses to do this, none of his milk will be taken. I would like to inquire of any one who knows, if it is lawful to run a railroad train on the Sabbath day? If it is not, why are the railroad companies allowed to do so? The whim of a few milkmen has brought into action this new method of desecrating the sacred day of rest; for there is no greater necessity for the running of milk trains on the Sabbath at the present time, than there has been in past years, or than there would be in carrying to market, on Sunday morning, all kinds of green gar-

den sauce, or any other eatables which are better when fresh from the farm. There are some men engaged in the milk business who think it wrong to team milk on Sunday, but who dare not refuse to do so, because they are afraid of losing a profitable business! What sort of a conscience can a man have who pursues this course of action?

S. L. WHITE.

*South Groton, Aug. 10, 1861.*

REMARKS.—The milk business of Massachusetts has come to be an important interest—too important to be conducted in the loose, and illegal manner which prevails. Our friends will bear us testimony that we worked hard to introduce a better state of things several years ago, but only succeeded in introducing a partial reform. It is high time that the whole business should be conducted legally and fairly for the farmer.

*For the New England Farmer.*

### RETROSPECTIVE NOTES.

THE BARK LOUSE.—At page 356 of the August number of this journal, we have a quotation from the *Canadian Agriculturist* in reference to this insidious and destructive little parasite. I call it an *insidious* as well as a destructive insect, for in size it is so small, and in color it is so similar to the bark of the trees which it attacks, (chiefly the apple and the pear,) that it may quite readily escape notice, and has, indeed, in a few instances which have come to my knowledge, actually escaped detection even on trees infested by it so abundantly that a pin could scarcely be struck into the bark of the trunk of the tree anywhere without transfixing one of these parasitic enemies. These statements about the difficulty of detecting bark lice on apple-trees on account of their small size, and their brown, bark-like color, and about their abundance on some trees, may seem astonishing and almost incredible to persons who have never had an opportunity of observing or studying them, but those who have had opportunities of this kind *know* that their size and color help to conceal them from *superficial* observation, and that sometimes they are so numerous as to cover the bark *completely*. It is on account of the *insidiousness* of the attacks of this enemy of our fruit trees, as well as on account of the amount of mischief often done by it, when it happens to go undetected or unsubdued for several seasons perhaps, that it is of importance to solicit the attention of farmers—the young and inexperienced especially—to the means of detecting and extirpating this little, but not insignificant enemy.

As to the *importance* of soliciting, and, still more, of giving attention to this subject, the reader may be helped, as the writer was also some years ago, in forming some adequate conceptions, by reading and *pondering* the following sentence from "The Farmer's and Planter's Encyclopedia." Under the heading of Bark Lice it is said:—"The mischiefs effected through these minute insects, to fruit and other valuable trees, are *far greater than is generally supposed*, and hence every farmer and gardener must be inter-

far better job of it than we could with wheat stubble, or other ground that had lain twelve months without being plowed. But the most important advantage of all is that when the barley is put in about the first of September, all the scattering grains of oats that are in the ground start and grow up with the barley, thereby helping to cover the surface of the whole field before the hard weather sets in; and when that does occur, the depth, &c., you may sow all your seeds at improper depth, while if you, under the same circumstances, sow broadcast, some of your seed will be pretty sure to be right.

#### THE SEASON AND CROPS.

Since we last spoke of the season and the condition of the crops, some four weeks since, we have had rain at different times,—first, in slight and gentle showers, and then in a drenching, easterly storm, which saturated the earth, filled the springs, and is now making the streams run merrily again. Whether this rain is to save the *potato crop* is uncertain. In all this region the vines of many of those early planted had been seriously checked by the sharp drought, and were more or less wilted, while some had altogether ceased to grow. The later planted crops still retain green and growing vines, and the plentiful rain may yet help them to mature a good yield. We hope this may be so, as, if “bread is the staff of life,” the potato has become almost as indispensable to our people. In favorable seasons, it is cheaply raised, is wholesome, may be cooked in various forms, and even the sick can partake of it when most other kinds of food would be rejected.

These latter rains will not only aid the second *hay crop*, which is now being cut in warm and rich spots, and in later localities will be quite abundant, but they will essentially promote and sustain the fall feed, and keep up the supply of milk until late in the season.

The drought rather seriously affected the *Spring and Winter grains*, so that this crop will be depreciated to one-third less than that of last year, in this State. We hope our correspondents in New Hampshire and Vermont will inform us of the state of these crops in those States.

The *Indian corn* crop now appears very promising—the wind in the late storm blew it over somewhat, but it is righting up again under the warm suns that have followed. With two or three weeks more of hot weather, and the absence of early frosts, there will be a magnificent harvest of this prime crop,—the glory of our New England harvests.

The *fruit* crop will *not* be an entire failure. Many orchards have a few scattering *apples*—very few, we confess. During recent rambles, however, we have seen many trees with good crops on them; in one small orchard, nearly every

tree was full, and the fruit appeared well. There are a few quite ordinary *peaches* in Boston market,—but scarcely one to each individual of the population. Notwithstanding the sweeping destruction of this delicious fruit, we hope all who have suitable places will plant a few healthy trees, as we shall undoubtedly have peach seasons again, as favorable as those which are passed.

On vines that were laid upon the ground and protected, there are now some fine *grapes*, from which we may gather fruit if frosts do not overtake them.

*Cranberries* are quite abundant in the meadows. On one or two pieces we find the cranberry worm destroying the berries, and on lands that cannot be flowed there seems to be no way of interrupting its progress. We are not certain whether the egg from which the worm proceeds was deposited in the blossom or upon the berry itself. Those infested begin to turn red quite early, and upon opening them are found nearly hollow, the flesh or pulp of the berry having been eaten, and the skin left fair and whole with the exception of one small puncture, made for the deposit of the egg, or for an air hole.

We have two or three square rods growing on high land, the vines of which are filled with splendid berries, and they are considerably earlier than those we have recently looked at in the meadows. The worms are among them, however, and may yet destroy the crop. The promise now is, that there will be a bushel to the rod—not a large crop, but a fair one for a three years' plantation. The worms leave the berries about the 15th of August, but what form they assume then, or where they go, we are not certain; we suppose, however, that they do not enter another berry, but enter the ground, and emerge sooner or later in a winged form.

The *root crops* that came up well, are now growing finely, and will be so sustained by the late rains as to give an average product.

Finally, as a whole, the harvest already secured, including the hay crop, has been more than an average one in all this region. At the West, we learn that the wheat crop was heavy, and has been favorably secured. We must wait in hope for the great Indian corn crop, and the indispensable potato. While our beloved country is distracted by a destructive war, diverting labor from its accustomed channels, and at the same time demanding an extraordinary amount of food, the season has been propitious, so that the farmer has been able to reproduce the prime necessities of life in profusive abundance. Let us, then—while we cherish no hatreds, and seek no revenges against our erring brethren—fight for liberty and union as long as our hearts have motion, or our arms power, and prove to the world that a



government based on the immutable principles of Justice and Equality cannot be overturned by wicked and designing men, either at home or abroad.

*For the New England Farmer.*

### THE MILK BUSINESS.

Since the commencement of the railroad era in this country, the traffic in milk has become a business of great importance. The inhabitants of cities and large towns are supplied with new, sweet milk—brought to their doors—for a price so low that very few are obliged to do without this nutritious article of food. Farmers who live within forty or fifty miles of a city, and near the line of a railroad leading to it, are giving particular attention to the production of milk for the market; and as a general thing, they find it more profitable than any other branch of farming. By selling milk the labor of the farmer's wife is very much lightened, which is a fact of no small importance among our delicate American women.

But there is one discouraging feature in the milk business which ought speedily to be removed. I refer to the length of time which many farmers have to wait before receiving pay for their milk. Very frequently they have to wait from two to six months, and sometimes a year or more, to have their bills cashed. To those farmers whose income is but small, these long credits are sometimes really distressing. I would like to ask the milkmen if there is any real necessity for this tardiness in settling accounts? If such delay is unavoidable, then we farmers must "grin and bear it;" but it seems to me, and many others, that there is no need whatever that credit should be given for a longer time than one month.

The consumers of milk buy it in small quantities from day to day, and the indebtedness of each one at the end of a week or month is small. If this small sum was promptly collected from each individual every month, the producers of milk could have their dues; but I fear that the milkmen are often negligent in collecting these small bills, and that after they are collected, much time is allowed to slip away before the amount is paid over to those to whom it mostly belongs. Is it not so, brother farmers? And cannot something be done to remove this great nuisance and wrong? Farmers are usually very quiet men, and do not like to "make a fuss," but in a case of this kind, if they would *all* say the word, and pull together, the change would come often and regularly into their pockets. It is not enough that farmers are obliged to wait so long for their pay, but recently, on some roads, milk trains are run on the Sabbath, and the milk must be carried to the depot Sunday morning. If the farmer refuses to do this, none of his milk will be taken. I would like to inquire of any one who knows, if it is lawful to run a railroad train on the Sabbath day? If it is not, why are the railroad companies allowed to do so? The whim of a few milkmen has brought into action this new method of desecrating the sacred day of rest; for there is no greater necessity for the running of milk trains on the Sabbath at the present time, than there has been in past years, or than there would be in carrying to market, on Sunday morning, all kinds of green gar-

den sauce, or any other eatables which are better when fresh from the farm. There are some men engaged in the milk business who think it wrong to team milk on Sunday, but who dare not refuse to do so, because they are afraid of losing a profitable business! What sort of a conscience can a man have who pursues this course of action?

S. L. WHITE.

*South Groton, Aug. 10, 1861.*

REMARKS.—The milk business of Massachusetts has come to be an important interest—too important to be conducted in the loose, and illegal manner which prevails. Our friends will bear us testimony that we worked hard to introduce a better state of things several years ago, but only succeeded in introducing a partial reform. It is high time that the whole business should be conducted legally and fairly for the farmer.

*For the New England Farmer.*

### RETROSPECTIVE NOTES.

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ested in becoming intimately acquainted with the nature and habits of so formidable an enemy."

There are two appearances which should always direct attention to the condition of fruit trees, and which may lead to the detection of bark-lice, if present. These are, firstly, a general unhealthy, unthrifty appearance; and, secondly, a rough and peculiar state of the bark, as if it were covered all over with small scales or shells. If these minute scales or shells be examined closely, they will be found, if bark-lice, to adhere so closely to the bark as to be hard to separate them therefrom, (though the prick of a pin will start them at some seasons of the year,) and also to yield when crushed a dark colored fluid. In the month of June, we have found, on carefully raising the edge of these scales, several very small white specks which we supposed to be eggs, the parent insect being, apparently, dead and dried up, and serving merely as a scale or dry skin for protection to her future progeny.

As to the *cause* of the unthrifty appearance of trees infested by these insects, we have had two or more guesses or theoretical opinions, namely, either that the insect, by its pricking the bark and sucking up the sap or juices of the tree in so many places, produced this unthriftiness, or that as in the case of ill-fed and uncared for calves and other animals, the cause of the unthriftiness consisted in the unfitness and infertility of the soil, depriving the tree of proper nourishment, or in a neglect to preserve the bark or skin of the tree in a healthy condition. One of these theories has been considered as possessing not a little probability, inasmuch as most of the trees which we have seen or heard of in neighboring orchards, as infested with lice, have been growing, or attempting to grow, on a hard, clayey, wet soil. This unfavorable condition of the soil would just as certainly produce unthriftiness in a tree, as want of sufficient or of nutritious food would produce a similar unthriftiness in a calf, and it seems to be only upon such half-starved unfortunates, whether of the vegetable or animal kingdom, that lice make their attacks, or find a place of abode appropriate to their parasitic tastes and wants. Another of our theories or guesses as to the cause of the unthriftiness of trees infested by bark-lice—that, namely, which supposes it to consist in an unhealthy state of the skin or bark, the lice being *more the consequence than the cause*,—has seemed to receive some support from the fact, that, so far as our observation and inquiries have extended, lice have *never* been found upon trees which had been regularly, once or oftener every year from their youth up, scrubbed with soap suds, lye, or any similar application.

But we are wandering too widely from the main object we had in view when we took pen in hand. This was to say an encouraging word to such farmers as may find lice upon their trees. The writer quoted from in the article under notice, speaks *so discouragingly* that some might be led to consider all efforts to exterminate this insect as likely to be in vain, and thus to give up to destruction, in a mood compounded of laziness and hopelessness, a tree or trees which a little judicious effort might save, and make productive. Let no one be discouraged by the want of success related in the article referred to (page 356, current volume.) The soil of that orchard may

need draining, or the washes used may have been too weak. All the trials made by neighbors, at our suggestion, have been uniformly successful; while in our own orchard we have had no lice, owing, probably, to a good scrubbing twice a year, with lye and soap-suds acting as a *preventive*. But when not *prevented*, lice can *certainly* be killed or *cured*, by equal parts of soap-suds and strong lye, preceded by some judicious scraping of the bark. June is perhaps the best month.

MORE ANON.

#### HARVESTING ROOTS.

Some persons say that "potatoes should be taken from the ground as soon as they are ripe. That it is bad policy to allow them to remain in the hills till the tops become entirely dry, as is the practice with some farmers. That potatoes managed in this way are almost always inferior to those harvested at maturity, and are not unfrequently watery and unfit for use."

These notions do not commend themselves to our views of the matter. It seems to us that no place can be found so completely adapted to the preservation of all the good qualities of the potato, until severe frosts come, as the cool moist soil where it grew. It comes to maturity there, the vines die, so that all action ceases between tuber and stem, the potatoes are not crowded or losing their moisture by evaporation, and are in the precise condition to be kept in their greatest perfection.

Some persons leave potatoes upon the ground, exposed to a hot sun during the day in which they are dug; thus those that are turned out in the morning lay in the sun during an entire day. We cannot think this practice a good one. If the potatoes are moist, and a considerable quantity of soil adheres to them, it is very much better to put them in the bin as they are, for it is quite impossible to thoroughly dry them without injuring their eating qualities, as there is a principle in them, which exposure to the sun concentrates, and converts into an actual poison. The small tubers which sometimes grow near the surface, and which, by the washing of rains or other causes, are left bare, assume a greenish hue, and, when boiled, possess a disagreeable, copperish taste. The same result is produced, in less degree, by exposure to the sun and air after digging. It is a common practice in some places to deposit the potatoes in boxes or barrels, and protect them from the sun and air, by a covering of sand or loam. This retains them moist, and effectually secures the preservation of all their excellences.

Turnips may remain in the field till late, as they are not so much injured by frost as is generally supposed. When "caught out" by frost, the turnip, if allowed to remain in the ground

till it thaws, will not be essentially injured, either in its eating or keeping qualities; the soil abstracts the frost and leaves the texture of the vegetable fibre nearly unimpaired. It is of importance to give the roots a cool place, where they can be occasionally ventilated during the winter, as in warm positions they are liable to become "corky," and are much injured as to their nutritional properties; besides, when stowed in large and compact masses, they will heat and most likely spoil. When ruta bagas are raised in large quantities, they require much room. If piled up, like cord wood, into stacks, the air will pass through the heaps much better than if thrown into one large mass. Barn cellars in which the temperature can be retained a little above the freezing point, will be found sufficiently warm for this purpose.

#### POISONOUS PROPERTIES OF BRINE.

It may not be known to all that brine, in which meat or fish have been salted, is poisonous to domestic animals. If left in their way they will partake freely of it as they will of pure salt, when it very often proves fatal. The *L'Union Medicale*, a French publication, gives an account of the researches of M. Reynal in regard to the poisonous properties of brine. From a series of experiments detailed, he draws the following conclusions:

*First*—That three or four months after its preparation, it acquires poisonous properties.

*Second*—That the mean poisonous dose for a horse is four pints; for the hog, one pint; and for a dog four to five gallons.

*Third*—That in less doses it produces vomiting in the dog and hog.

*Fourth*—That the employment of this substance, mixed with the food, continued for a certain time, even in small quantities, may be fatal.

We know from experience, that brine, if swallowed by hogs and other animals, will prove fatal, yet we doubt if the subject is susceptible of the definite results as stated by M. Reynal, for the degree of the poisonous properties of the brine depends on various circumstances. We have known a much less quantity to prove fatal than that stated above.—*Valley Farmer*.

**A CANINE CITY.**—On the southern arm of the Red river there is a village of prairie dogs, which is no less than 25 miles in length by as many in breadth. It consists of subterranean galleries, sometimes nine feet deep and about five inches wide, and the superstructure is formed of earth thrown up by these curious little animals. Towards the end of October, when these little dogs feel the approach of cold winter, they fasten up all the passages leading to their burrows with straw, then they fall asleep until the return of spring. They are happy little fellows, and if they could speak, they might boast of a city spreading over a greater space than London, and containing a greater number of special inhabitants.—*Scientific American*.

*For the New England Farmer.*

#### PRUNE IN WINTER--KILL THE CROWS.

MR. EDITOR:—I have long been a subscriber to the monthly *Farmer*, and I frequently find an article which I think worth a year's subscription. I consider it of such value that I have preserved every number to be bound, and yet there is occasionally something taught which seems to me erroneous. One of these is summer pruning of fruit trees. I have followed this teaching for several years; but I constantly noticed the stump would bleed and turn black, and this bleeding in some cases continued several years. Last winter I pruned several trees at different times during the winter, and into March, and the stumps all look healthy, and have not bled a particle. There is no black stripe running down the tree. These facts, with the fact that our fathers pruned in winter with apparent good results, and the fact that grafting is most successful when performed in February or March, with many other reasons which I could adduce, inclines me to think winter the best time for pruning. But this summer pruning, if it should destroy every fruit tree in the land, is a trifling error compared with another, which is, *spare the crows*. I shall be thought extravagant when I say a greater error cannot be promulgated; one more destructive to the interests of our country.

It is a remarkable fact that the great crime of the crows has never (to my knowledge) been presented to the public.

He is the wholesale murderer of smaller birds. In early summer, his business is to watch the birds' nests, and when they hatch he voraciously swallows all the young in a nest for one meal. The result is, that small birds are vanishing away, and, as a natural consequence, grubs, worms, caterpillars, ants, millers, &c., are multiplying at a fearful rate. Should this course continue it is easy to see that the time will come when it will be difficult to raise anything.

Small birds are very scarce now compared with forty and fifty years ago. I should think there are not more than one now to ten at that time, and there are several kinds of small birds which were frequent when I was a boy that I have not seen for years past. I would advise a war of extermination against crows, hawks and owls. I would set the boys to shooting them, and I would also use strychnine. The crows might be exterminated in a few years by feeding them with corn impregnated with strychnine upon the seacoast where they congregate in winter.

STEPHEN ADAMS.

*West Newfield, Me., Aug. 10, 1861.*

REMARKS.—We cannot agree with our respected correspondent in either of his propositions.

**WINTERING CALVES.**—Calves should have loose stables, or stalls to run in during winter, with a little yard or paddock for exercise out of doors in fair weather, and plenty of air always. Good soft hay, a few oats, say a pint a day for each, or an equal quantity of corn, oats, or barley meal, and in mild weather a quart of sliced roots is their best food. In very cold weather, roots do calves—such is our experience—more hurt than

good. They are cold and watery, and scour them. In mild weather, roots supply the place of green food, and we consider them good for that only, in our Northern climate.

If calves get lousy, rub a little soft greese mixed with a sprinkling of Scotch snuff, on the affected parts, thoroughly to the skin, and the lice will leave at once. If you have not the snuff, grease alone will do. This is effectual, and the only remedy we have applied for years. Tobacco water we do not like. It often sickens the calves, and is not so certain a cure as the greese. Keep the calves warm, dry and clean, and they will come out in the Spring as bright as larks.—*American Agriculturist*.

## EXTRACTS AND REPLIES.

### HAY CROPS.

I have repeatedly heard the remark that the hay crop of this season is better than it has been for twenty years past. What say you to this? We are apt to magnify objects directly in view, to the perversion of our better judgment. I have noticed many fields that yield a ton or more to the acre; but as a general thing, on well cultivated farms, I believe the crop cannot with propriety be estimated more than one ton to the acre. That is, on a farm where the land for mowing amounts to forty acres, the crop, when gathered to the barn, will not exceed forty tons. If you have observed differently, please state what you have seen?

ESSEX.

August, 1861.

REMARKS.—The hay crop, in the New England States, and in northern New York, according to our observation, and the reports which we find in our exchanges, is certainly more than an average one. The average in New England cannot be, we think, more than one ton per acre; but thanks to such intelligent writers and observers as is our correspondent, to the press, and the exertions of our county and State societies, that average, we believe, has been somewhat increased in Massachusetts. The hay crop has certainly been a gratifying one, and it has been secured in admirable condition.

### DAIRY FARMING.

Receiving such satisfactory answers to my former questions induces me to query further. I am anxious to carry on farming in a rather more extensive scale than is commonly done about here, which is generally the skinning process, and my main object is to manufacture all the manure possible on the farm, and still make the stock profitable. I am undecided whether to engage in the milk, butter or cheese business. I can calculate on 17 cents per pound for the butter, and 10 for the cheese, or 2½ cents per quart for the milk at the door. Can you or your correspondents inform me how many quarts of milk it requires to make a pound of cheese? G. H. CROSBY.

East Hampton, Me., Aug., 1861.

REMARKS.—We have seen it estimated that it requires one gallon of new milk to make a pound

of curd. When this curd is pressed, there would remain something less than a pound of cheese. We have little doubt that it would be more profitable to make butter and cheese, keep swine on the waste, and increase the manure, than to sell the milk at 2½ cents per quart.

### SOWING OF RED-TOP IN THE FALL—CORN ON OLD AND NEW LAND.

Can you tell me whether it is proper to sow red-top in the fall? I have asked many farmers in this vicinity, and none can give me the desired information. There are two pieces of corn in my neighborhood; part of each piece has been planted for a number of years, the remaining part of each lot was plowed last fall ready for planting this spring; the pieces were manured in the hole with Coe's superphosphate of lime; the ground that had been planted for a number of years did well, but the new ground has done poorly thus far; a great deal of the corn was eaten by the worms in the spring, and what remains will be only fit for fodder. What is the cause of this difference?

Our crops are doing well, and unless something new should turn up, will be good.

J. ELKINS.

Hampton, N. H., Aug. 10, 1861.

REMARKS.—It is a common practice to sow red-top seed in the fall, and it ought to be sowed early, say the last of August, or the first part of September. It will be several days in coming up so as to be readily noticed, as it comes in a single, hair-like stem, of a pale green color. It rarely grows in the first of autumn so as to form a joint.

Corn on sod land is sometimes badly eaten by worms, and where they destroy a portion of the crop the remainder does not seem to flourish well. This is the only thing that occurs to us as the cause of the difference of which you speak.

### LANDS IN WESTERN NEW YORK.

Will you inform me through the monthly *Farmer*, respecting the unoccupied land in western New York? I understand that there is good land there, but do not know the price per acre. Also, please give a general description of said land: The distance from market, the quantity and quality of the wood, information on the climate and its healthfulness, water, productions and conditions of payment. Any other information which you can give will be very thankfully received. Please give me the name of the land agent, and the place of his residence so I can send him a line, if desirable. A SUBSCRIBER.

North Brookfield, Aug., 1861.

REMARKS.—We wish we were possessed of one-half the knowledge which it seems to be supposed we have. We have no reliable information respecting the lands in question, but will send this paper to our friend and former correspondent, WINSLOW WATSON, Esq., of Port Kent, N. Y.

## HERD BOOK—BROOM CORN—POULTRY.

We cannot tell our "Somerset" friend where he can find a "Herd Book" of Ayrshire stock—nor "Subscriber" what broom corn is selling for at present. We can find no mention made of broom corn in the best prices current. Our Waltham correspondent may find the fowls he desires by writing to Levi R. Hewins, Foxboro', Mass.

## YOUTH'S DEPARTMENT.

## GIVE AS YOU WOULD TAKE.

My bairnies dear, when you go out  
With other bairns to play,  
Take heed of everything you do,  
Of every word you say;  
From tricky, wee, mischievous loons,  
Keep back, my bairns, keep back;  
And aye to all such usage give  
As you would like to take.

To twist the mouth and call ill names  
Is surely very bad;  
Then all such doings still avoid—  
They'd make your mother sad.  
To shield the weakly from the strong,  
Be neither slow nor slack,  
And aye to all such usage give  
As you would like to take.

A kindly word, a soothing look,  
Have ready aye for all;  
We are one Maker's handiwork,  
He made us, great and small.  
We're all the children of His care;  
O, then, for His dear sake,  
Be sure such usage still to give  
As you would like to take.

*Nursery Songs of Scotland*

## A TOUCHING SCENE.

A French paper says that Lucille Rome, a pretty girl, with blue eyes and fair hair, poorly but neatly clad, was brought before the Sixth Court of Correction, under the charge of vagrancy.

"Does any one claim you?" asked the magistrate.

"Ah! my good sir," said she, "I have no longer friends; my father and mother are dead—I have only my brother James, but he is as young as I am. O, sir! what can he do for me?"

"The Court must send you to the House of Correction."

"Here I am, sister—here I am! do not fear!" cried a childish voice from the other end of the court, and at the same instant a little boy with a lovely countenance started forth from amid the crowd, and stood before the judge.

"Who are you?" said he.

"James Rome, the brother of this little girl."

"Your age?"

"Thirteen."

"And what do you want?"

"I come to claim my sister Lucille."

"But have you the means of providing for her?"

"Yesterday I had not, but now I have. Don't be afraid, Lucille."

"O, how good you are, James!"

"Well, let us see, my boy," said the magistrate, "the Court is disposed to do all it can for your sister. But you must give us some explanation."

"About a fortnight ago," continued the boy, "my poor mother died of a bad cough, for it was very cold at home. We were in great trouble. Then I said to myself, I will be an artist, and when I know a good trade I will support my sister. I went apprentice to a brush-maker. Every day I used to carry her half of my dinner, and at night I took her secretly to my room, and she slept in my bed while I slept on the floor. But it appears she had not enough to eat. One day she begged on the Boulevard and was taken up. When I heard that, I said to myself, 'Come, my boy, things cannot last so, you must find something better.'

"I soon found a place, where I am lodged, fed, and clothed, and have twenty francs a month. I have also found a good woman, who, for these twenty francs, will take care of Lucille, and teach her needle-work. I claim my sister."

"My boy," said the judge, "your conduct is very honorable. However, your sister cannot be set at liberty till to-morrow."

"Never mind, Lucille," said the boy, "I will come and fetch you early to-morrow." Then turning to the magistrate, he said: "I may kiss her, may I not, sir?"

He threw himself into the arms of his sister, and both wept tears of affection.

## FALSE PROVERBS.

"A young fellow must sow his wild oats." In all the wide range of British maxims there is none, take it for all in all, more thoroughly abominable than this one as to the sowing of wild oats. Look at it on what side you will, and I will defy you to make anything but a devil's maxim of it. Whatever man, be he young, old, or middle-aged, sows, *that* and nothing else, shall he reap. The one only thing to do with wild oats is to put them carefully into the hottest part of the fire, and get them burnt to dust, every seed of them. If you sow them, no matter in what ground, up they will come, with long tough roots like couch grass, and luxuriant stalks and leaves, as sure as there is a sun in heaven—a crop which it turns one's heart cold to think of. The devil, too, whose special crop they are, will see that they thrive, and you and nobody else will have to reap them; and no common reaping will get them out of the soil, which must be dug down deep again and again. Well for you if, with all your care, you can make the ground sweet again by your dying day. "Boys will be boys," is not much better, but that has a true side to it; but this encouragement to the sowing of wild oats is simply devilish, for it means that a young man is to give way to the temptations, and follow the lusts of his age. What are we to do with the wild oats of manhood and old age—with ambition, overreaching, the false weights, hardness, suspicion, avarice—if the wild oats of youth are to be sown, and not burnt? What possible distinction can we draw between them? If we may sow the one, why not the other?—From "*Tom Brown at Oxford.*"

## LADIES' DEPARTMENT.

## DOMESTIC RECEIPTS.

**BLACKBERRY WINE.**—To three quarts of blackberry juice, add one quart of water and three and a half pounds of sugar, white or brown. Put it in an open jar, and let it stand two or three days to work; then bottle, and set away in a cool place for a year before using.

**BLACKBERRY CORDIAL.**—Take any convenient quantity of blackberries, and stew in a preserving kettle for half an hour; then strain, and boil again for half an hour, adding one pound of sugar to each quart of juice, using spices to the taste. When cool, add one gill or more of genuine Cognac brandy to each quart of juice. Then bottle and cork tight.

**A CHEAP BEER.**—A very good, palatable and wholesome beer may be obtained from acorns and hops. It is slightly sparkling, eminently tonic, and a febrifuge. The acorns are steeped in water for fifteen or twenty days, the water being renewed four or five times; they are then transferred to a cask, hops are added, the cask filled up with water, and the bung-hole lightly covered, but not stopped, as there is an escape of gas. In fifteen or twenty days the beer is fit to drink, and as fast as it is drawn off fresh water may be poured on. The cost is less than three pence per gallon. It would supply four or five persons, for eight months, with a very excellent beverage.

**NEW WAY OF BOILING FISH.**—The addition of a few herbs and vegetables in the water gives a very nice flavor to the fish. Add, according to taste, a little sliced onion, thyme, bayleaf, winter savory, carrots, celery, cloves, mace, using whichever of these ingredients you can procure; it greatly improves skate, fresh haddock, gurnet, &c. Fresh water fish, which have no particular flavor, are preferable done thus, with the addition of a little vinegar. Choose whatever sauces you please for any of the above fish.

**GREEN CORN PUDDING.**—This is one of the numerous luxuries which the farmer can enjoy with but little expense or trouble. For making it, take twelve ears of green corn, full in the milk and grate it. To this add one quart of sweet milk, one-fourth of a pound of fresh butter, four eggs well beaten, pepper and salt as much as may be deemed necessary. Stir the ingredients well together, and bake in a buttered dish. Some add a quarter-pound of fine sugar, and eat with sauce. This is a fine-flavored and excellent dish, cold or warm, with meat or sauce.

**FRIED EGG PLANT.**—Cut the plant in thin slices, sprinkle with salt, and let them stand half an hour, pour off the water that the salt extracts, and dry the plant with a towel; beat an egg, dip the plant in it, then roll in cracker, and fry brown in butter. Some prefer simply dipping them in the egg without the cracker, or rolling them in the flour without the egg. Season highly and cook slowly.

**BAKED EGG PLANT.**—Parboil it until it is soft enough to stick into the meat; then cut it just in

half; scoop out the inside, leaving the hull; chop it very fine, and season very highly with pepper and salt, a good deal of butter, and a very little onion, and add crumbs of bread. Mix all well together, and return it into the hull; then strew crumbs of bread on the top, and bake it about an hour. If carefully cooked this is the best way to eat egg plant at dinner.

**PICKLING CUCUMBERS.**—As a general thing, sufficient care is not taken in pickling cucumbers, and large numbers of them "spoil" in less than three months' time. The following method we think the best: Select a sufficient quantity of the size you prefer, which probably cannot be done at one time. Put them in a stone pot, and pour over them a strong brine; to this add a small bit of alum to secure the color. Let them stand a week; then exchange the brine for clear water, in which they must remain two or three days. Boil the best cider vinegar, and when nearly cool, pour it over the cucumbers, having previously turned off the water. Prepared in this manner with the addition of cloves, allspice, mustard and cinnamon, boiled in the vinegar, pickles of every kind will keep for a year. In pickling cauliflower, tomatoes and other vegetables, which easily absorb the vinegar, the spiced vinegar should be added when cold.

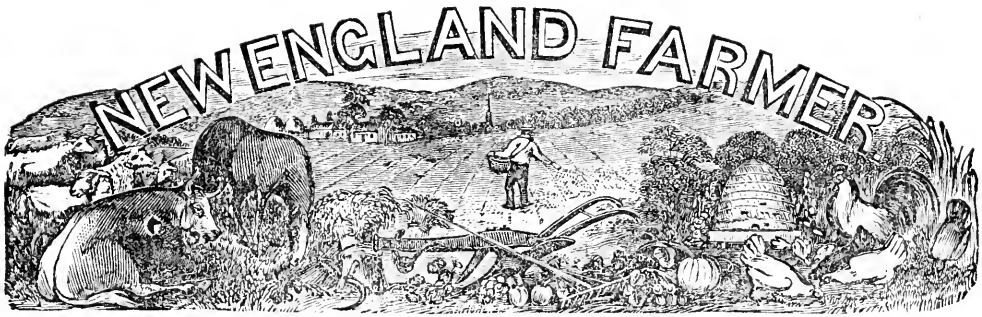
## IN LOVE WITH CALICO.

As the "last best gift" are discussing the dress question in the *Rural*, we think the remarks of one of the "sterner sex,"—a young man in Oswego county, who has been inspired by calico,—are worthy of more than a passing notice. Read them and ponder:

Calico dresses are a grand institution. Delaines, silks, and even satins, are good enough in their place—in the parlor or band-box, and all such; but after all the old "stand by," the substantial, is the shilling calico. Care must be taken not to soil the silk; nothing must come in contact with the nice dress that will rumple and stain it; but the calico, that's made for work, and, as the "highfalutins" say, "nobly does it fulfil its mission." Silk rarely finds its way into the realities of life; that is, into the kitchen at home, or into the hut of the suffering abroad. But calico. O, what rich meals we get by it; how it cheers the suffering as with its bright colors and cheerful presence it stands with soft hand ministering to our distresses.

Calico seems to be always more willing and ready to give to want than silk. It is a curious fact of our nature, that the nicer our dress the harder our heart is, as if when dressed in silk we changed our natures, and rose above base, worldly things. What! our silk dress be seen near enough to that poor woman to give her assistance, or drabbling into a dirty hut? No, never! Calico might do it; silk, it's just impossible.

But when in addition to all, Calico comes in, rosy with the exercise of kitchen duties which it knows how to do so well, and loves to do so dearly, and sits down to the piano or melodeon, and makes the liquid melody flow sweetly forth; aye, even blending its own sweet voice with the music of the instrument, then we appreciate Calico."—*Rural New-Yorker*.



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SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR OCTOBER.

"There is a beautiful spirit breathing now  
Its mellow richness on the clustered trees,  
And from a beaker full of richest dyes,  
Pouring new glories on the Autumn woods  
And dipping in warm light the pillared clouds.

LONGFELLOW.



OCTOBER is the middle of autumn. Everything around us is sober, touched with a slight shade of sadness. The mirthful songs of the birds have ceased. The lambs are no longer frisking on the hill-side. The flowers have vanished from the sight. The rich

green of the fields has changed to the "brown and sere." The autumnal flowers, nipped by the frost, are drooping their heads. But still October is one of the pleasantest

months of the year. The sun, as its car ascends the sky, melts away the mist and haze of the early morning, and shines out bright and clear. All nature is in a state of repose. The productive labors of the season are over. The birds and insects have done their annual work, and are taking their rest. The cricket and the locust are lazily chirping in the field. The cattle are resting in the shade, and chewing the cud of contentment. The vegetables have ripened their seeds, and secured the continuance of their species. The golden corn is perfecting its grain, and awaiting the sickle. The full-cheeked and ruddy apples are maturing their juicy pulp, under the chemical influences of the warm sunlight.

The frosts has opened the burrs, and the nuts are dropping from the trees, and the busy squirrels are laying up their winter stores. The shy trout is sunning his glistening sides in the little open coves and bays of the brook, and the farmer is quietly and steadily gathering the latter harvest, and garnering it up for winter use.

As we look abroad over the fields, and up towards the hills, every object we behold is veiled in a delicate, filmy haze. 'Tis pleasant to stroll by the bank of the river, and along the margin of pond and meadow, and observe the gorgeous tints of the maple, the ash and the beech.

Our New England forests at this season present a picture peculiarly striking to the stranger from the old world, and from the South. In the tropical regions, animated nature wears a bright and gorgeous livery, and the birds and fruits reflect the rays of the sun like golden balls, among the deep green foliage, while the birds and fruits of our clime are clothed in more sober costume; but the rich, varied and brilliant hues of our forests, in the early autumn, rival the splendors of the tropical birds and fruits. But this glorious coloring will soon pass away, and the "coat of many colors" that now clothes the forests, will fade into a russet brown, growing paler and paler as a premonition of the white covering that will soon spread, like a winding-sheet, over forest and plain, while nature reposes in the death-like sleep of winter. How wonderful, and how varied are the operations of nature, and how worthy of the study of rational and intelligent beings! The seed germinates in the spring, and pushes its radicle into the soil, and its plumule into the atmosphere, that it may draw nourishment from both. First the blade appears, and then the ear, and then the full corn in the ear. The matured seed drops into the soil, and either takes root, like the grain of wheat, preparatory for the growth of the next year, or folded in its many-ply pericarp, remains in the ground till the warmth and mois-

ture of the succeeding spring wake it into life and activity. Perhaps the freezing and thawing of winter may be needed to open the rigid ligneous covering in which it is sealed up, as is the case with the seeds of the nut and the peach.

The buds of the tree unfold in the spring, and however high it may rear its lofty head, or however wide it may spread its sturdy arms, it is in a brief space of time clothed in beauty and when it has formed and matured its fruits and seeds, it does not cease from its labor, but diligently forms the fruit buds for the coming year, and accumulates materials for their organization and development.

Nature has made wonderful provision for the propagation and preservation of plants. Some are propagated only by the seeds, others by the roots, by layers, by grafting and by budding. The seeds of some are furnished with wings, that they may be transported to spots suitable for their growth; some are enveloped in coverings so impenetrable that they are not easily acted upon even in the stomachs of birds and animals, so that they may be carried by them to distant places, and distributed over the surface of the soil.

October is a good season to study the habits of the seed-bearing grains and plants, and to observe the varied and curious provisions which are made for the security and distribution of their seeds.

The evenings are getting long, and invite to neighborhood visits and social gatherings. The old-fashioned *husking-bees*, as they were called, seem to be getting out of date, at least, in our vicinity. Should the lads and lasses unite in a protest against the introduction of husking machines, as the Kilkenny laborers have against mowing machines, we should be almost tempted to join them. Those were glorious times when we used to go to huskings in our young days. All the girls and young men in the neighborhood would assemble in high glee. The lantern suspended from the end of the long pitchfork thrust into the haymow, gave just light enough to enable us to pick up the ears of corn, as we sat or stood around the golden pile.

In those days, the girls did not wear crinolines, and a fellow could get within arm's length of them. Sometimes, when the company was large, or the space small, we were compelled to sit or stand close together, and this mightily increased the sociability, if not the amount of work done, on these occasions. When the husking was over, about ten o'clock, the sport was by no means done. We have never enjoyed any suppers since, as we did those suppers with the girls after huskings. The newly-baked bread and sweet butter, the baked sweet apples, the pumpkin pies, and other fixings, disappeared with amazing rapidity.

Sometimes we had tea or coffee, and sometimes sweet cider. One farmer, we remember, always gave us a drink of metheglin. We wonder how many of our readers can tell what metheglin is. After supper and a song, or a dance, or both, we had to gallant the girls to their homes. This was always a pleasant walk by moonlight—and when there was no moon, it was none the less so, provided, always, we had managed to get the girl of our choice.

Those good old times have deeply impressed themselves upon our memory. We ne'er shall look upon their like again. Even the old pumpkin pies themselves are not half so common as in the time of those sports and customs, and the pumpkin itself is not cultivated half so much as its intrinsic value deserves. Sweet cider is esteemed a rarity, but those moonlight walks, about the noon of night, were the greatest rarity of all!

The old soldier

—“shoulders his crutch  
And shows how fields were won,”

so we, in imagination, revisit the scenes of our youth, and recall many of the pleasant occasions and joyous emotions which were then present realities, and perhaps this reference to them may set some of our older readers rummaging among the memories of the past; and if it should call up some long-forgotten incidents, some delightful moonlight walks, during which the parties agreed to walk together through the remainder of life's journey; if it should suggest to some grandfather a good story for his grandchildren,—if it should even be the occasion of one good batch of pumpkin pies, who will say that we have made it in vain!

**BEE HARVESTS.**—There are for the bee three harvest seasons every year,—spring, summer and autumn. If only one of these yield abundantly, the bees will secure a supply for all of their prospective wants; and so likewise if all three are only moderately good. When they can gather plentifully during two of them, they secure a supply and a surplus; and when all three yield amply there will be a superabundance of stores. As a general rule, destitution or starvation will only occur among bees which are diseased or mismanaged; especially when by improper or excessive pruning in the spring they are constrained to use for comb-building the avails of the early harvest, and the latter ones prove to be meagre.—*American Bee Journal*.

**DRIED SWEET CORN.**—Now is the time to dry sweet corn for winter use; and if dried properly who is there that don't like it. Take the best ears, cut from the cobs, and spread in dishes or tins, and put in the stove oven and beneath the stove. It will dry in a very short time. Don't scald it as some recommend who don't know any better. It is much better without, will dry just as quick.—*Exchange*.



*For the New England Farmer.*

#### A LEISURE HOUR.

MR. EDITOR:—Being in your goodly city the other day, and having a little time on my hands after disposing of all other business, I went to the Agricultural Rooms of Nourse, Mason & Co. I had been there before, and always with increased interest; this great show-room of active brain has peculiar charms for me. I know of no better place to spend a leisure hour, and to get posted up in the progress of farming matters, than a visit to these rooms. I will say nothing about your own sanctum, Mr. Editor. I fear, however, I should not have so free a run in the latter as I am permitted to enjoy in the former.

Let others talk about their half-horse and half-alligator, and humbug the people out of their honest quarters by the mermaid, if they will visit this museum of agricultural implements and come away and not say the visit was worth twenty-five cents, then they ought to be humbugged. Here were implements in abundance of all kinds, materials, shapes and sizes—of many of which I could not guess the use—not only pertaining to the out-door arrangements of farm labor, but the in-door as well, showing that our gallant inventors do not forget that angelic woman, the farmer's help-meet, has a place in their active brain—but proof that she has an important part to play in the drama of the farm.

In going about the large hall I was continually amazed with the vast amount of mind which is being constantly exerted for the benefit of the farmer in all his departments of labor; the evidence was too palpable not to be understood, and that farmer must be a dull and stupid man indeed, who cannot this year carry on his business better, cheaper, and all things considered, with increased results, than at any previous time.

Every department of mechanical invention is being exerted for his profit—air, earth and water are elements brought to his command, to take the place of human muscle; and it is for each one to decide for himself whether he will keep up, in spirit and practice, with the times, by availing himself of means at command, and prove that farming is profitable, or neglecting these means, plod on as his fathers did, and know farming to be a hard and not a very paying business, as his experience proves it.

Everything, now-a-days, seems to go on the high pressure principle; and if the "biler does bust" now and then, it is no proof that the principle is not a sound one—by no means; there may have been some defect in the "biler," or there was too much pressure of steam. The way I look at things, a man had better "bust," provided he don't kill anybody, than not go at all. I hope the reader appreciates my argument.

My idea is this. The farmer who would be successful, happy, contented and get money, must love his profession, be a man among men and take advantage of every means at command. He must be active, wide awake, and well read in his profession, which implies enough to occupy all his leisure time. He must adopt new methods of culture, which implies also that he should experiment a little, enough, to say the least, to test the new before quitting the old methods, and to bring out a new idea now and then. He should avail

himself of all new and approved implements his wants require and his means admit of—remembering his "better half."

In fact, *my* man should be the "up and dressed," active, intelligent, progressive farmer. I am glad to know that the list of such is constantly enlarging all over the North and West—men whom no profession can honor, but who honor their profession. Reader, shall we put your name down?

*King Oak Hill, 1861.*

N. Q. T.

*For the New England Farmer.*

#### DOGS.

MR. EDITOR:—Your correspondent "J. C. D." says, "I know nothing of dogs, and am unable to appreciate their virtues." I reply, that I know them to be a nuisance, and have never yet discovered their virtues. As a curse to the Commonwealth, they stand, in an economical point of view, next to rum! and their control and management form one of the most difficult subjects of legislation. The present law is better than nothing, but under it but few will venture into the business of sheep breeding.

I believe there is but one remedy for the mischief done by dogs, and that consists in passing a stringent law prohibiting their running at large. Under such a law "J. C. D." could study their virtues at home, and keep any number he pleased for the purpose. He would only be restrained in trespassing upon other people's rights. He could fill his own premises with dogs, while his neighbor could occupy his with sheep, protected by severe penalties. If a man wants a watch dog, let him be confined, as any other dangerous animal should be.

My illiberality consists in a desire to protect my property and person from the attacks of a worthless race of beasts, in whom are combined the bad qualities of the wolf, the catamount, and the rattle-snake. C.

#### THE BEAVER IN LONDON.

The visitors at Regent's Park, London, are very happy in the enjoyment of a beaver. *All the Year Round* says of him:

"This beaver seems perpetually happy. He has constructed his own abode with materials thrown over into his enclosure, and goes on thus reconstructing and altering it for ever. The superintendent communicates it to first gentleman, who retails it to second, and so on, that this beaver is so fond of his house that though he managed on one occasion to get out of his enclosure and down to the banks of the neighboring canal in the dead of the night, he was yet found next morning back in his legitimate domain, and working away at his 'improvements' as hard as ever. He is a lively chap at night, and was not the least disconcerted by the presence of the party gathered round him, but was, on the contrary, so tremendously busy in doing nothing and then undoing it again, still keeping his eye upon the four gentlemen who had come to see him, that third gentleman was heard at last to remark to fourth gentleman that he 'looked upon this animal as an imposter, and believed he was doing it all for effect.'"

*For the New England Farmer.*

### A PLEASANT HOME.

BY JUDGE FRENCH.

While our friends and brothers are prospecting on the "sacred soil" of Virginia, it seems perhaps very dull to talk or read of anything but battles and the chances of war; but of what, do you suppose, are the dreams, both sleeping and waking of the brave boys, who have left New England homes to defend our rights, composed? What are the pictures, that oftenest pass before the minds, either in memory or anticipation, of the soldier who has left his boyhood's rural haunts, as he paces back and forth on his dreary night-watch, or whiles away the sultry day under a tropical sky? He is always ready for the fight, but days and weeks pass away, with no enemy in sight, and scenes of blood and carnage have no charms for his fancy. His mind is ever busy, wandering back homeward.

Home, whether with wife and children, or *Home* at the paternal homestead—*Home* is where the heart is. A New England home means much. Within the past hour, we conversed with a soldier from Middlesex county, just from the seat of war in Virginia. "Many of our boys are farmers," said he, "and we have been finding out how they carry on their farms down there. Some of them have not used any manure for a dozen years, and everything is out of order. If we Yankees had them, how soon we would make splendid farms of them. They don't keep their places neat, as we do; they don't look much like *home*."

As things are going, it would not be strange if many a New England soldier should, after the war is over, return to Virginia, and there build up his home, and with a vote and a musket ready always to maintain the right, help to answer the question, "How will this war end?"

A New Englander who thinks of home, when far away, recalls, not the dull routine of labor on its hard soil, not the hard struggle with nature to invest from her a not very liberal subsistence, but he thinks of the neatly painted house, with trees which his own or his father's hands have planted, shading it from the summer's heat; of the broad street in the village, overhung with ancient, drooping elms, where the boys and girls played in the evening; of the "green" by the school-house or church; of the neighbor's house a half mile away, where *somebody* waited for him at twilight, with a loving smile, to walk in the lane by the moonlight. Memory is very kind to us, in thus keeping in the foreground of her pictures the scenes most pleasing.

But this is one of Nature's laws, that not the length, but the intensity of the impression shall

be the measure of its influence on the life. The day may be passed in weary toil, and be mingled with many others like it, in a sort of indistinct background, while the mere glimpse of loved ones, coming out upon the green sward to welcome our return, with eyes that "mark our coming, and look brighter when we come," may imprint a sunlight picture on the heart, that will never be effaced. A pleasant home is the secret of many a boy's purity, and many a man's prosperity, yet how slight a circumstance may mar its harmony. We knew a man once who had a fancy for black snakes, and who amused himself by keeping one at his door, but he soon found that nobody would call on him. The snake was confined and harmless, but the descendants of Mother Eve have a horror of serpents, and instinctively avoid their haunts. Many a house has some kind of a serpent in it, or at its door, and small or great, nobody thinks of anything at that house but the serpent. It may be a cross-grained, ill-natured father, who frowns the life out of the family, hushing every ringing laugh of childhood at his approach, and ruining your appetite at table with groans about hard times, or fierce political; declamation or it may be an over-worked, fretful mother, whose nerves are strained up like fiddle-strings sadly out of tune, who cannot help scolding continually, though she does not know it, and who "kicks the wee stool o'er the mickle," as naturally as the lightning strikes, just to let off the surplus electricity; or again, it may be but a little snake in the shape of a froward, conceited, spoiled child, large or small, foolishly suffered to run at large, and have its own disagreeable way.

Somebody says, with regard to dress, that you should always have a central point, as an elegant cravat or vest, or for a lady, a costly pin or bracelet, with which all the rest should be made to harmonize, so as to produce one agreeable impression as a whole. Everybody knows how a single gross blunder, even in the small matter of dress, offends good taste, and how you strive in vain to forget some mere awkwardness of manner or expression in a person whom you really esteem.

To make home pleasant, small things must be carefully attended to. A note or two of music may have little importance apart from the rest, but an omission of them from a tune may destroy its harmony. Many homes in the country are cheerless for the want of indulgence in simple matters of taste. Men who can readily enough find money for showy horses and carriages, and observatories on their barns, often restrict their wives and daughters, whose better taste would adorn their houses at trifling cost, with graceful articles of furniture, or with well chosen engrav-

ings of models of ancient art, and thus give a higher expression of comfort to the household. The puritanic taste of our forefathers, which was content with the huge square houses, with the largest half unfinished, still lingers with their sons, though their daughters have nearly outgrown it.

Our purpose, however, was to speak of the outward adorning of the house, or rather of what may be called its dress. Trees and grass are almost as cheap as air, and yet they are the chief ornaments of a country house. In general, flowers should be cultivated in the garden, and not in the yards around the house. It requires great labor and care to keep even a small flower-garden neat enough to be an ornament. Nothing is so beautiful and grateful to the eyes, as a well kept lawn, with scattered native trees upon it. The beauty of a lawn consists in its being even and constantly green. To be even, it need not be level, but may be sloping or undulating according to its position, but it should be graded and kept, so that the grass may be mown close to the ground. To be always green, the soil must be deep, though it need not be very rich, and above all, it must be cut so often as never to run up into stalks, much less to head out.

About five cuttings in a year will be found sufficient in New England, and three of those will be about twelve days apart in spring. If after each cutting a roller be passed over it to press down the little bunches caused by worms and insects, and by frost, the grass may be cut much closer and the effect will be better. Common red-top with white clover are better than all other grasses, in our opinion, for lawns. A little care to remove at first, all witch-grass and weeds will be necessary, and then a light top-dressing of compost or ashes, once in three years, will keep it green forever.

A lawn thus kept, with here and there an elm and rock maple, and, if there is room enough, an occasional group of white pines or hemlocks, is one of the most pleasing pictures in nature, and if it be set in a frame of buckthorn or arbor vitæ, in the form of a hedge, the finish is complete. The boys who have gone out from homes where peace reigns within and harmony and grace spread all around, bear in their memory a charm which will keep them safe through many trials and temptations, and which like a loadstone will direct the steps homeward, when the occasion which has called them away has ceased to exist.

**CURE FOR POTATO DISEASE.**—The London *Times* publishes a list of remedies for the potato disease. The most efficacious is one discovered by "C., of Hornsey," which consists in pressing down the haulm thus: "He set his potatoes in

a double row instead of single, the two rows occupying a foot in width, with a foot of vacant space outside each row. They were planted on the level, and hoed up at the usual time. Now comes the important step: When the haulm had reached its full growth, about the 1st of July, he turned it over right and left towards the vacant spaces, by adding earth between the rows and pressing down the haulm, so as to drive it from the erect position, and allow the rain instead of descending to the roots, to run off upon the vacant space." Not one in a hundred perished.

#### BARNs AND MANURE.

Extracts from an address delivered by C. L. FLINT, Esq., Secretary of the Massachusetts State Board of Agriculture, at Springfield, at the Hampshire County Show in 1860.

The progress of farming has been comparatively slow, and therefore men have hesitated to trust to the "sure and firm-set earth," for the return of a proper per centage on capital invested in farming enterprises.

The corporation of a turnpike, or a branch railroad, has had a larger credit than the farm, among farmers themselves, and the first considerable sum that can be spared is invested in these, rather than in real and permanent improvements which would not fail to be more profitable in the end, than any such stock to be found in the country.

This distrust of the soil and the promise of a beneficent Father has led to the pernicious impression, that farming will not pay, and hence many young men have sought other means of support. They do not wish to slave themselves for a life-time, they say, and get nothing for it at last. But let such look around them for an answer. They will see some rising to an honorable competence, by industry and application to farming alone; they will see farms freer from mortgages, and farmers enjoying the comforts and luxuries of wealth, and educating their families from the proceeds of their occupation alone. I think a limited survey even will lead them to the conclusion that farming will pay as well as any other calling where the risks are so slight, if the farm be properly and judiciously managed.

It should be borne in mind that those who fail in farming, are generally men who would fail in anything else. It is thriftless indolence alone that need anticipate a failure.

\* \* \* There are in the State, (Mass.) more than 75,000 barns. It is thought that five cords of manure—of 102 4-5 bushels each—is a small allowance for each of these barns, since, in many towns and in some entire counties, the average is considerably greater. But suppose it to be five cords—or about seventeen loads of thirty bushels each—this manure may be estimated at three dollars a cord. In some counties from four to six dollars can be obtained without much difficulty, and that, too, where the purchaser is obliged to haul it a distance of five or ten miles, as is often the case. But putting the price at only three dollars, and the number of barns at only 75,000, and the number of cords to each at only five, all of which are thought to be small estimates, the number of cords now made in the

State would be 375,000, which may be valued at at \$1,125,000. The best judges think that an increase of one hundred per cent. might easily be made, on an average, throughout the State, with a reasonable degree of care and attention. If this be true, the Commonwealth annually suffers a loss of \$1,125,000, at least, by neglect in this single department.

*For the New England Farmer.*

#### HOW TO BUILD CISTERNS.

In the *Farmer* of January 5, I noticed directions for excavating cisterns which appear very absurd to me, as being 5×15 ft. on top and excavated with a slope so as to be 9 in. wide on the bottom and 4 ft. deep, it would hold very little water for the amount of labor and material used. The surfaces being flat, would be very easily forced in by any accidental pressure from without, whereas if they run on a circle it would be an arch not likely to fail. Now I think there is only one right way to build a cistern, which is this: Draw a circle 10 ft. in diameter, and excavate 3 ft., then draw a circle 8 ft. in diameter and excavate 8 or 10 ft., if the earth will stand up safe, and plaster with two coats of good cement; but if it be loose gravel, dig one foot more or less, at a time, and plaster as you go, with quite soft mortar, and at times it may be necessary to hold it on a moment until it sets. When the sides are completed, shove the top sloping inwards, and lay a course of brick in cement, leaving a hole wherever a conductor is to be inserted, then follow with other courses drawing over rapidly so as not to reach an elevation of more than 18 inches, where the hole is in the centre, say 24 inches diameter, plastering the outside, and treading the earth in firmly around the base of the arch as you go, to prevent it spreading. Build a square chimney (a little larger than the hole in the arch, so that a lid can be dropped in loosely, or it will swell so that it cannot be got out,) to the top of the ground, and finish with frame and trap-door in the middle for dirt to settle in\* and lay a flat stone. Smooth the bottom, with a sink where the pump pipe goes, and plaster with a good thick coat of cement, about the consistency of thick whitewash, and it is done, probably, for all time. The waste pipe should lead into a "hole in the ground" filled with loose stone, as if it goes out on the surface bugs and toads will crawl into the cistern, and the air will circulate through, and freeze in winter. The water in a cistern of this description is as sweet and cold as the best well water, unless impregnated by new shingles.

*Quechee, Aug., 1861.*

\* Being all the filter that is of any practical use.

**MCDUGALL'S DISINFECTING POWDER.**—This is an English preparation, and of wonderful efficacy in the various places where we have used it. In the sick chamber, in hospitals, in the army and navy, dissecting room, and all similar places, it must prove of great value. The only agency that we know of is that of James R. Nichols & Co., 12 Kilby St., Boston.

#### THE WEEDER.

"*The servant earnestly desireth the shadow.*"—JOB.

"The morn is past, and yet the weeds are thick,  
And the fierce August sun pours on me burningly.  
O God!" she said, "send, send that shadow quick,  
Which I desire so yearningly.

"For me the heat and burden of the day,  
And a stern master who doth show no lenity;  
For him rich pleasure-lands stretch far away,  
With groves of cool serenity.

"Above his meadows, into golden air,  
The rounded knoll uplifts its green protuberance,  
The ripening harvests wave and toss their hair,  
In golden-tressed exuberance.

"There are cool woodlands, in whose dusk arcades  
The very noonday seems of twilight emulous;  
No heat wins there, but, in the silent glades,  
The silent dews hang tremulous.

"There the tall tulip crests the glorious scene,  
The stately monarch of those sylvan palaces;  
And its strong arms, like priests in ferial green,  
Lift up their golden chalices.

"Through the thick leaves the tempered sunbeams sift,  
And pleasant shades are o'er the sward distributed;  
There worms may crawl; there thistle-down may drift;  
And I—I am prohibited.

"I faint with toil; yet keep my faith to all,  
Though none save God, regardeth me observantly.  
Father!" she cried, "when will that shadow fall,  
For which I pine so fervently?"

Then came a shadow; but 'twas icy cold,  
As of some swart, dread angel o'er her hovering;  
It wreathed around her with voluminous fold,  
And wrapped her in its covering.

Chill though it was, she hailed it with a smile;  
And, worn by years and grief and long infirmity,  
Lay down beneath it, slept a little while,  
And wakened in eternity. *Putnam's Monthly.*

#### WILD BEE-HUNTING IN AUSTRALIA.

I am indebted to my brother, who has been a resident for twenty years in various parts of Australia, for the following account of the mode employed by the aborigines in obtaining the wild honey of the stingless bees that are found in some parts of the interior of that continent. These bees, which are about the size of our common house-flies, build their combs (composed of globular cells) in the hollow of trees. The black, who is desirous of obtaining the honey, betakes himself to the side of some water-course, having provided himself with a slender stick. He has also a little piece of fine down, picked off the leaves of a common plant, which he has previously twisted into a point at one end, and dipped into the sticky juice obtained by breaking the stem of another weed. Thus armed, he fills his mouth with water, and when he sees a bee alight on the margin of a pool to drink he discharges the mouthful of water over it in a fine shower, and thus by wetting the wings of the bee prevents its flight. He then allows it to crawl upon the stick, and when the wings are nearly dry, and the bee is preparing to fly away, he attaches the pointed end of the light tuft of down to the back of the insect, by means of the sticky point. This by impeding the rapidity of its flight, and by rendering it more conspicuous, enables the savage to pursue it to the hollow tree containing the

comb. The honey is described as being of a peculiarly limpid character, and of very good quality; it frequently is to be found on the tables of the settlers in the interior, and used as an article of luxury by them. This honey is found in the forests of the interior. My brother saw some which had been procured 500 miles inland from Sydney.—*Letter from Australia.*

#### STRAWBERRY CULTURE.

We have already given one or two articles on the *culture of the strawberry*, but as the subject is one in which everybody is interested, and as not *one-tenth* of our people are yet supplied with this delicious fruit, we copy the two popular modes of culture as given in *Hovey's Magazine*, for August. We are confident they will be acceptable to a large portion of our readers.

"We shall now detail the two modes pursued by the cultivators around Boston. We say two, for there may be others, but we take such as we have witnessed, and these comprise the Belmont system, and that pursued by Mr. Scott, and some others.

The Belmont growers prepare their ground well by some crop the previous year to planting. They manure well, plow deep, and set out their plants in April or May. These are planted in single rows, *about a foot apart in the row, and just four feet from row to row*, running the whole width and length of the ground, with an occasional cross alley of three feet for easy access to the centre of the field. The ground is kept clean until the runners begin to spread rapidly towards the last of June, when no more labor is required during the season, other than to pull out a few weeds, for the young plants so quickly and completely cover the ground that very few weeds will start up. By the autumn, the whole ground will be covered, when a walk about a foot wide is cleared out in the middle of the rows, leaving solid beds of plants just three feet wide. This walk is for the pickers to stand in, also to afford air and light to the plants. On the approach of winter the beds are covered with meadow hay, which is removed in the spring, except that in the walks between the beds, which is left undisturbed in order to keep the fruit clean.

The fruit begins to ripen about the middle of June, and is usually all gathered by the 10th of July, when the beds are immediately turned under with the plow, a new plantation made in the spring supplying the crop for the next year. The next spring the land is well manured and planted with potatoes or some other crop, and the following year is ready for another plantation of strawberries.

This is the mode now pursued by the best Belmont cultivators with the Hovey's Seedling, and though an old plan, pursued by English cultivators as we have above shown, it was entirely original here with Mr. J. O. Locke, who first tried it, and with so much success that nearly all follow it. The old plan was to keep the beds two or three years, and this is still followed by those who raise the Old Virginia.

As regards fertilizers, the Belmont growers plant six rows of Hovey's Seedling, and then one

or two rows of Jenny Lind, Boston Pine or Brighton Pine. These are ample to thoroughly fertilize the plants. These sorts are subjected to the same treatment,—all plowed up after one crop. More complete details of the Belmont plan will be found in our volume for 1859.

The system pursued by Mr. Scott and some of the extensive Brighton growers is different. It is as follows: The beds are marked out *three feet apart*, with an alley of a foot, (which is just the same as the Belmont growers allow;) but two rows of plants are set out in each bed, instead of one; these are planted about nine inches from the edge, leaving a space of about eighteen inches between the two rows. The plants are allowed to cover all the ground, (three feet wide,) the runners in the walks being cleared away.

The treatment the first year is just as we have detailed with the Belmont growers. But instead of plowing up the beds after the first crop, they are allowed to stand the second year, keeping them clean and removing superfluous runners. The crop the second year is good, but not equal to the first; after that they are plowed up and the ground cultivated a year or two with some crop, when it is again occupied with strawberries.

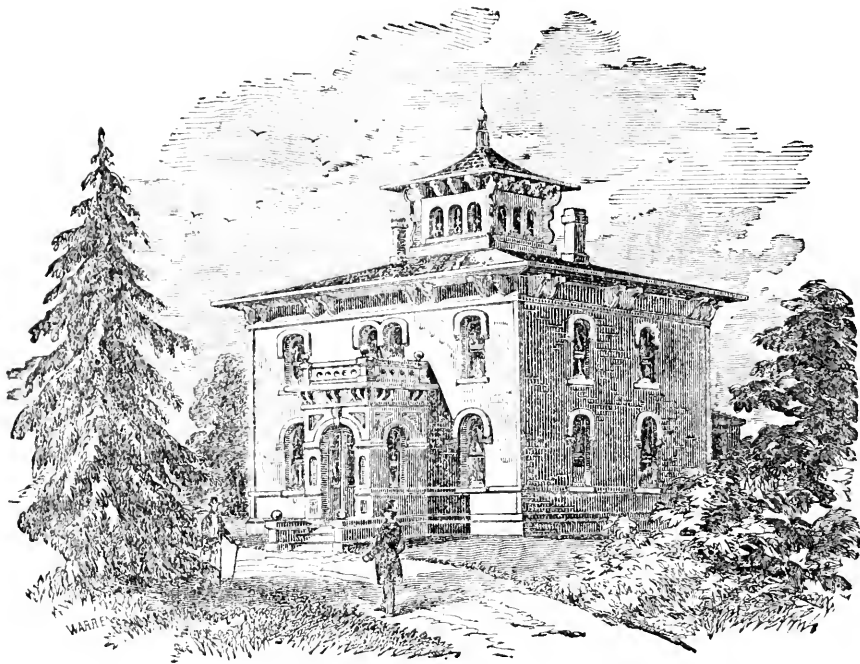
The difference in the two modes is this. The fruit of the Belmont growers is in the highest perfection every year, (except injury from drouth,) with less labor in planting the beds at first, and in keeping down the weeds the second year. By the Belmont plan, there is a crop every other year; by the Brighton plan, two crops in three years. But it is believed that the extra size and product of the Belmont system will yield a much greater profit than the inferior size and diminished product of the second year on the Brighton plan. What the exact crop of Mr. Scott is per acre, taking the two years, we do not know, but the crop of Mr. Wellington was 4100 quarts in 1859, 4000 in 1860, and this year, in consequence of the dry weather, less than 3500. The difference in the expense of culture is, we should suppose, not large; but the crop must be much smaller and inferior the second year.

*For the New England Farmer.*

#### DOGS.

Pray keep up your war upon dogs. Show no quarter to the worthless beast. Why should New England lose millions annually by dogs? Sheep are nearly exterminated in Massachusetts. Mutton is high, and we need all the wool we can produce. We have a great extent of territory that can be profitably devoted to sheep raising, but the dogs forbid it; there is but one way of getting rid of the nuisance. Pass a law prohibiting their running at large, and allow any one to shoot them where so found. Why give a bounty for wolves and wild cats, while you allow protection to the dogs that do more damage in one year than all the wild animals in the State do in ten? If a man wants a dog, let him keep the creature on his own premises, and go at large at his peril. Why let dogs run in the highways any more than cattle? In the towns around Boston no cow is allowed to run at large, yet a cow is a harmless animal compared to a dog. Down with them.

C.



## RURAL ARCHITECTURE.

DESIGN FOR A VILLAGE RESIDENCE, BY GEO. E. HARNEY, LYNN, MASS.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

The accompanying is offered as one of a series of designs intended to supply a want that has long been felt, of suitable models and plans for plain, compact and inexpensive residences, convenient in plan and appropriate in style for town lots or situations on thickly settled suburban streets.

The construction of this design is of wood, and in style it partakes chiefly of the Italian character. It is two full stories in height—without attics—and measures thirty feet on each side, exclusive of the porch at the front entrance and a small one-story addition in the rear for a pantry and sink-room. The roof is nearly flat and is surmounted by an observatory, which is the most prominent feature of the design. Between the roof and the ceiling of the chambers under it is ample space for ventilating the whole house.

The first story measures ten feet high in the clear, the second is nine feet, and the cellar, extending under the whole house, is seven feet in height.

CONSTRUCTION.—The frame is composed of spruce timbers—all except the sills, which should be of pine. The following are the dimensions:—Posts 4 inches by 8 inches and 21 feet high; sills 8

by 8; girths 4 by 8; plates 4 by 6; braces 3 by 5, (diagonal pieces bracing the posts to sills, girths and plates where necessary;) studs 2 by 4 and 16 inches from centres, (i. e. from the centre of one to the centre of its neighbor;) window and door studs 3 by 4; principal floor joists 4 by 10 and 4 by 9; common floor joists 2 by 10 and 2 by 9, and 18 inches from centre; trimmers and leaders 3 by 10 and 3 by 9, (timbers running along side of chimneys, staircase, &c.;) rafters 2 by 9. All the floors should be cross bridged in lengths of over twelve feet.

The walls, roof and all under floors may be covered with hemlock boards. The outside and inside finish should of clear, sound pine. The roofs may be covered with tin and painted, or with one of the patent cements now much used. Hammond's mastic roofing is recommended, the cost being five cents per foot, while that of tin is ten cents per foot. The walls are to be covered with pine clapboards, laid not over  $4\frac{1}{2}$  inches to the weather.

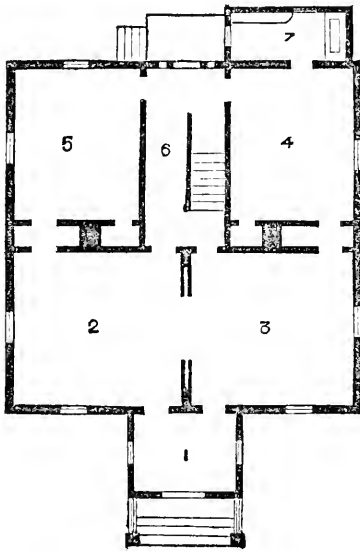
INSIDE FINISH.—The walls and ceilings are to be lathed, plastered and skim-coated. The wood work is to be of pine; the door and window trim-

mings and base of the porch, parlor, sitting-room and both front chambers to be ornamented with a simple finish moulding, while throughout the rest of the house they are to be perfectly plain.

**DOORS.**—The outside front door is to be in two parts folding together, with the upper panels glazed with a single plate each. The size is 4 ft. by 8. All the principal inside doors are to measure 2 ft. 10 inches by 6 ft. 10 in. and  $1\frac{3}{4}$  in. thick. The rest are 2 ft. 6 in. by 6 ft. 6 in., and  $1\frac{3}{4}$  in. thick, with a raised panel.

**WINDOWS.**—All the windows are to be double hung with pulleys and weights. The sashes are to be of pine, glazed with best quality of German glass, four panes to each window; each pane in the lower story to be 16 by 32 in., and in the chambers 16 by 30 in.

All the closets are to be fitted with shelves and drawers or hooks for clothing. The pantry is to have a sink with pump and cupboard, besides shelves and hooks.



**ACCOMMODATION.**—The vestibule—No. 1 on the plan—is 6 ft. by 8 ft., and opens into No. 2, the sitting-room and No. 3, the parlor, each measuring 13 ft. by 14 ft., and connected together by folding doors, so that when necessary both rooms can be thrown into one large apartment, 13 ft. by 28 ft. 8 in. No. 4 is the kitchen, measuring 10 ft. by 15 ft. and furnished with two closets beside the pantry, No. 7. (The door between the kitchen and parlor should be omitted.)

No. 5 is the dining-room, of the same size as the kitchen, and provided with a good sized china closet on the right of the chimney, while on the left is a passage connecting it with the sitting-room.

The hall, No. 6, opens into the several rooms

and out upon a gallery in the rear, from which steps descend to the yard.

The second floor contains four chambers, a bathing-room and six large closets.

**COST.**—This house, built in the manner above described, would cost in the neighborhood of \$1900. It has already been built for a less sum, but the mechanic who contracted for the job, would not build another for less than the sum above named.

*For the New England Farmer.*

#### ARMY WORM.

In various parts of Maine and Massachusetts we begin to hear of the depredations of the army worm. It is to be hoped this new enemy in your midst will be of short duration. We have for years past, heard of its ravages with the cotton plant at the South. Now the great and important point is, to learn where and from whence it came? At Danvers it appears in the barley field of Benj. F. Porter, Esq. Then again, 100 miles east, at Biddeford, Maine; then again, at Bangor, 140 miles farther east. In the two latter places, it is not stated in the items of your paper whether they appeared in grain fields or elsewhere. The sudden appearance of this vermin at points so distant, is marvellous, indeed, but before I close I will suggest a hint.

We also learn that the "wheat midge," or louse, has made a profuse onslaught on the spring wheat. This should teach the wisdom of sowing winter wheat without delay. The earlier it ripens next year, the less liable to danger from insects as well as rust.

But, to the question of these new enemies in my grain fields. Was the seed imported? Did it come from the Patent Office, the South, or the West, or was it raised in your neighborhood? This is easily ascertained and worth investigating. That the eggs, or *pupa*, of various insects may be distributed the world over in seeds, there can be no doubt. Hence the necessity of preparing seed grains in salt pickle for 12 hours, and as a further safeguard, rake it when wet in ashes or lime. It quickens and insures the germinating powers so desirable in a dry time, even should no other advantage be gained.

In 1846 I was presented with a half bushel Chili wheat, a beautiful heavy grain. Before sowing it, in September, I put it into a tub of salt pickle and stirred it. Instantly arose to the surface nearly a pint of a tough, brown crustaceous vermin, that was neither bug or worm, with a snout like an elephant, many legs, bristly body, half an inch in length, and not easily rubbed out of existence by pressure of the foot. There was no appearance of this insect when the grain was turned into the pickle. It then occurred to me, I had luckily escaped a serious trouble—*just imported from Chili!* The next season, when the grain was in the milk, I found three or four worms of a beautiful chintz color, similar to those described by our worthy and scientific friend, Doct. Sanborn, of Andover in the *Farmer* of late date. [Mr. Sanborn, who recently described the wheat midge, in the *Farmer*, is a son of "our worthy and scientific friend, Doct. Sanborn, of Andover."]

The Doctor died some two years ago. The son is filling his place as rapidly as possible in the department of scientific inquiry.—[Ed.] I was particularly struck by the beautiful, brilliant colorings of these stranger worms, having never seen their like before—at that time. I came to the conclusion it was the offspring of the crustaceous insect here described.

That much mischief may arise from imported seed, and that caution should be used before putting it into the ground, must be evident to all concerned. How is it possible that a wheat field should be infested with weevil the first year of its being sowed, and perhaps the first ever put on the farm, unless it should be brought in the grain? Will some of your scientific readers, east or west, enlighten the farmer on this subject of weevil—as Mr. Fowler proposes to do on the habits of the army worm? We look anxiously for his communications.

H. POOR.

*For the New England Farmer.*

#### LETTER FROM THE HOMESTEAD.

BY JUDGE FRENCH.

*Chester, N. H., Aug. 13, 1861.*

MY DEAR BROWN:—A rainy day in the country, in summer, is a useful institution, not only because it helps on the potato crop and fall feed, but because it gives us, who have run away from the city for a few weeks, and do not mean to do much but play till we return, an opportunity to collect our scattered thoughts, and note down our observations of things about us. My play, this vacation, is very much like what some people would call work, but it answers my purpose for recreation much better than hanging round fashionable watering places. I am engaged in what every farmer must try his hand at sooner or later,

#### REPAIRING OLD BUILDINGS.

And let me advise every man, especially in the country, to teach his boys the use of carpenters' tools. A work-shop, with a bench and a variety of good tools, is a necessity on a farm, and a comfort and economical arrangement, at any home.

The old homestead has many monuments of our handiwork about it; and in that word *our*, with myself, I include of course, yourself and my two brothers. The well-house and fixtures by which, with a stone at one end and the "iron-bound bucket" at the other, of a rope running over a wheel, we draw up water that is cool and fresh, and not poisoned with lead nor tainted with dead fish—that was, I think, our joint production. I have an impression that you and brother Edmund did most of the hard work, except the shingling and splicing the rope, in which we allowed the Major to think he excelled, while I did the general superintending! My opinion is that it is the best way ever yet invented for drawing water to drink. As I was about to say, they

who know how to use tools, keep their houses in order. Their doors do not catch at top or bottom, so as to require a kick to open them, their gates are not off the hinges, their wives do not scold because the pump runs down, or the handle comes off of the coffee-mill; in short, they know how to "put things to rights" and keep them so.

#### ABOUT SHINGLING.

Experience is the best teacher, we are told, and in repairing the homestead, the past is talking with us always. We, the carpenter and I, were on the roof yesterday stopping the leaks. How long will shingles last? These were clear heart pine rift shingles, well laid, on a flat hipped roof, first covered with tarred paper. They were laid in 1844, and with a little patching will last out the twenty years. But heart-shingles are getting scarce, and hereabouts people use sawed sap shingles, first dipped in lime white-wash. After they are laid they are whitewashed once in three or four years, and thus it is thought they will be durable. Our next neighbor here has shown me a roof shingled twelve years ago. A part covered with whitewashed shingles is good yet, while the rest, covered with the same shingles without the lime, has rotted out. Chestnut was used for shingles a good deal, a few years ago. It will never decay, but warps so much by the heat as to look badly and loosen the nails. At Boston, the comparative cost of the best slating and shingling is about as three to two, or say \$7,50 per hundred square feet of slating, and \$5 per hundred of shingling. All things considered, a slated roof is cheaper, more secure against fire and water, and far handsomer.

#### ABOUT TIMBER.

We have examined the timbers in the cellar, and can report what experience tells this generation about the preservation of timber. The house has stood sixty years. Part of the bottom timbers were old timber, sixty years ago. The house was built on an old cellar, in part, and many of the floorings have the marks of the mortises and halvings of the old frame of which they were part. The white oak and chestnut sills are sound yet, and, indeed, so are those of pine, except in one dark corner where vegetables were always kept, and there was no ventilation. There the floorings had rotted away so that we replaced them years ago.

To make your house endure, place it on a stone foundation, so that no earth will ever touch the woodwork, and keep the cellar well ventilated. In that way, good white pine timber will last longer than the builder.

As to what is between roof and sill, or more poetically speaking, "turret and foundation



stone," there seems to be no limit to its endurance, if well cared for. A pine board exposed to the weather will last as long as it is kept well painted. Now for the proof. The front yard fence has stood sixty years. It is of pine, and a part of it of palings or slats less than an inch square, and these are most of them as sound as ever. The lattice-work in the lower part, where the joints have opened by the settling of the foundation so as to admit water, has decayed somewhat, so that on the whole, the fence has been condemned, and a new one takes its place, of round palings one and one-fourth inches diameter, four inches apart from centre to centre, and four feet high, with an acorn top above the top rail, say six inches, the lower rail resting on the hewn stone underpinning which upheld the old fence. Then we find most of the casings on the old posts, after sixty years' service, sound enough to use again, preserved by the paint outside, and protected from the air and moisture within. But how about the ventilation inside these posts? The casings were air-tight, and yet the boards are sound inside, and are hardly stained by time! The posts themselves are mostly sound above ground. One, however, was found so decayed as not to preserve even its form, but this, too, was part of the old frame, while others of white oak are as good as new, except the bottoms. They all were years ago spliced up and supported by small foot posts, which are still sound, so that our best judgment is that the original posts and this renewal have lasted the sixty years.

My father had never, in a long life of careful observation, fully determined whether a chestnut or white oak post is the more durable. Either, made of good seasoned timber, will last from twenty to thirty years. I am using dry chestnut, eight inches square, and expect them to last pretty well toward the end of this century.

The old urns, which surmounted the original fence, with some stopping of cracks with pine wood and putty, will keep their old places, on the posts. They, too, have been preserved all these years, by the repeated coatings of white lead and oil.

"How much does such a fence as that cost?" is a question which I have several times answered, and which I am very happy to answer in the paper, because it has been much the fashion to waste money in such structures. Probably some readers may smile when informed that the fence, except the posts, came from Boston, forty miles by rail, and six by wagon! But I knew the difference between hand labor and machine labor, and there is no planing machine, or other aid to carpentry, in this neighborhood, so I stepped into a wood-turner's in Boston, and gave an order for the palings and rails, and in a few days they ar-

rived here in good order. There is about seventy feet in length of the fence, and it cost, for two hundred palings, six dollars; rails bored, and mill-planed, and delivering at depot, seven dollars; freight on the rail sixty cents; by wagon fifty cents; making in all fourteen dollars, ten cents, or about twenty cents a foot besides posts, and the labor of setting, which would cost perhaps ten cents a foot more. Now I think it is worth knowing, that a neat, durable fence, good enough for any place, may be built so cheaply; and anybody who reads this letter carefully, may find, what nobody could tell me, exactly the proportions and expense of such a structure. It is finished, all but the painting, and is satisfactory to ourselves, and a discerning and critical public.

In most places, instead of building an ornamental fence, I would plant a hedge; but here we have to strike several times to find a spot where a crow-bar can penetrate between the stones with which the ground is filled, so that a hedge was almost impossible.

With many regrets that you are not with us for a Massebesic pond party, I remain,

Truly yours,

H. F. F.

REMARKS.—Thank you, Judge. Few things would give us more pleasure. The information you have imparted, is just what thousands of our people need. The question, How best to preserve buildings and fences? is one of great importance to our farmers. Shingles scarcely last more than a dozen years now, and replacing them is always an expensive repair.

*For the New England Farmer.*

#### WHALE OIL SOAP vs. THE BARK LOUSE.

Almost every cultivator, whether great or small, is unfortunate enough to have some apple trees which escape good culture, or are diseased at the root. Young trees in a feeble condition invite the bark-louse; and although good culture may not remove them, it generally, if not always, prevents their appearance—that is, so far as my experience goes.

A few years ago I discovered that three or four of my trees were infested with this insect, than a stranger to me. Some of the trees had been neglected; but one, though well cultivated, had been badly split at the root in setting, and should have been put upon the brush heap. Upon this the bark-louse appeared and spread very rapidly, so as much to deform the bark. I applied whitewash for two seasons, but the bark grew no smoother, and as I found the tree in a dying condition, it was exterminated. To the others, not so bad, ley was applied; but the insect did not seem to be checked; then soft soap, but without much success. For the two past seasons I have applied whale oil soap, reduced by hot water to the consistence of paint, and put on with a paint-brush. I did it in the spring and also in June. Wherever applied, the louse began to disappear,

and now the bark is smooth and healthy, and only here and there is there a spot where he can be seen. And I trust that these spots will yet be made too bitter and slippery for a comfortable or safe habitation.

Now I am a believer in whale oil soap for trees. Others may boast of the omnipotence of potash water, and divers others may come down hard for *soft* soap, but allow me to expatiate freely for the whale oil! It adheres, undoubtedly, to the bark longer than potash or soft soap, and consequently does not need so frequent use; while at the same time it is more easily prepared and kept than ley (requiring great caution as to strength,) and seems to be an effectual exterminator of the bark-louse, and even otherwise healthful to the trees. Any hard brown soap, I suppose, would render the bark too slippery for the adherence of the young louse, but whether it would kill the old one or its eggs as readily as a kind more nau-seous, I am not prepared to say. D. W. L.

*West Medford, Aug., 1861.*

*For the New England Farmer.*

#### "I CANNOT AFFORD IT."

Some writer has said that not one person in ten dares to say "I cannot afford it," when truth and justice to himself require it.

Is this a strong assertion? I think not. Let us take but one class of men and women in our community, farmers and their wives, and see how this is. We will suppose a man commencing farm life with few or many acres, it matters but little for our purpose. How many things in one year are presented to him for his notice, with the assurance of some purely disinterested lover of man and womankind, some being overflowing with the milk of human kindness, that it is just the thing he or she wants and must have—a combination long sought of all that is desirable,—in a word, that it is *the* thing of all others that he must have, and much more that we have not yet learned?

Now how many of our farmers that have never thought of this desideratum, (I do not now refer to really useful farm implements, or the many indoor conveniences which render home attractive,) will at once say, "No, sir, I cannot afford it?"

How many, when appealed to to give a sum of money to some public enterprise, by some make-believe philanthropist, soliciting them with an earnestness, worthy of a better cause, dare to say readily, "I cannot afford it," after they are clearly convinced that it has no claim upon their time or money?

The writer of this knows of a farming town which was visited by a young man possessed of great firmness in all his plans and actions, very courteous, and consequently of great power to direct. He designed to obtain subscribers for an article which could be only of very doubtful benefit to but a limited number of persons. This the gentleman indirectly admitted to the writer. Still, Mr. — had been a close observer of human nature, and he said to me that, "although he knew that not more than one in twenty to whom he should present the article, had or would have, the least desire for it—yet" said he, "I can assure you, that I shall sell to about every family in the place, excepting a few persons in deep pov-

erty, whom I could not have a face to ask, persons who do not in five years have, at one time, the money sufficient to pay for it."

"But, my dear sir," said I, "not more than ten families in the place can afford to buy that."

"Ah, do you think so? Well, now, how many will dare tell me so at once, giving that frankly and honestly as a reason. Why, my good woman, I've found the world over, that people who cannot, are the last to say they cannot afford a thing."

His words proved true. Of course, quite an amount of talk was necessary to aid the seller. The writer has the means of knowing that in nineteen cases out of twenty, Mr. — was not beyond the reach of "a stone's throw," before they were provoked with themselves; what under the sun they bought it for they didn't know, and then they vowed "they'd never touch it if it was brought;" and I also know that many women mourned in silence, not a little, and to their better halves considerably, "that they should have been so foolish, when they were needing this thing and that thing, and had wanted it for years," and long was the list of their "going-withouts;" and they finally concluded that, "when it came, if they had to take it, and had to pay for it, they'd put it out of sight and hearing."

"I shouldn't have taken it, for all his talk," said many, "but there was Mr. S. and Capt. L. and N.'s folks subscribed, and I didn't want to say I could not afford it."

There is the rub. By the way, my friends, you make a decided mistake when you put of sight these "can't afford things." You would dispose of them far more profitably and to your best advantage, were you to frame them, granting they were frameable, in splendid frames, and hang them where you could view them daily, in their different lights and shades, and let them teach you lessons of truth and firmness.

The farmer's wife goes to the neighboring village, or may be the city, shopping, with not a very long purse. The shopkeeper gathers the rich, glossy silk in such pretty folds, or the rich ribbon, which he knows how to "bow up" better than any milliner, is temptingly exhibited. She hesitates—she never thought of buying to-day, but Mr. Such-an-one's wife steps in, dressed in a better silk, and she dares not say before her, "I cannot afford it," and she allows it to be cut off, and it is too late.

Let me privately assure you, my lady friends—you will never, to use terms you will understand, "set by" that dress, or take any comfort in wearing it.

Again, a farmer's wife of quite moderate means is assured by half-a-dozen ladies of the parish to which she belongs, that it is really shabby and mean to let the sewing circle lose any in numbers and interest, because it is the busy season of the year. What if she has no help, and is completely worn down, is that any reason why the cause of benevolence should suffer? Ought she to think altogether of self?

Why, Mrs. A. assures the aforesaid farmer's wife "that she could see from her pew, that the minister's old turnipy-looking thing of a silver watch had two dents in the case, and for her part she couldn't take any more comfort of the services."

Mrs. B. said, "she had made up her mind that rather than take her New York cousin to the minister's tea-table again, before they got his wife the silver tea-service, she'd go out of the parish begging, or get it on the credit of the circle."

So our hesitating farmer's wife takes the dollar she had laid one side, to pay to one who had assisted her in sewing, and drags her tired and weary self to the "circle," and works only the harder at home the next day. At last the gold watch and chain, and the silver tea-service, are presented, by more than one who knew, but dared not say, "they couldn't afford it."

Now this vacillation is not only untruthful, but it is a sign of weakness. How many of the reverses of life may be fairly charged to this hesitation and weakness.

There are a few things that farmers and farmers' wives cannot afford :

A farmer cannot afford to sign notes for a man in trade.

A farmer cannot afford to purchase articles of luxury because a city or village friend "no better off" than himself, has done the same.

A farmer cannot afford to contract debts, unless he has reasonable expectations of having ample means to defray the same.

A farmer cannot afford to purchase "what he doesn't exactly want."

A farmer cannot afford to subscribe for more periodicals and newspapers than he is able to read or pay for in advance.

A farmer cannot afford, because he has disregarded all of these directions, and consequently met with reverses and losses, to "give up," but he can afford to rise above circumstances, and show to the world that there is something far nobler than a man's surroundings.

A farmer's wife cannot afford, because she often has to be "the maid of all work," to consider herself thereby the loser of a particle of self respect, or one whit beneath the wife of the millionaire.

A farmer's wife cannot afford to be ignorant of the out-of-door affairs upon the farm.

A farmer's wife cannot afford to be ignorant, if she does not "wear the breeches," of how they ought to be worn.

A farmer's wife cannot afford to be ignorant of the exact state of her husband's financial affairs.

Lastly, a farmer and a farmer's wife can never afford to fear to say, upon necessary occasions, truthfully and firmly, "*I cannot afford it.*"

J. K. L.

**VENTILATION OF THE APPLE BARREL.**—By this we mean the boring of holes in the head of staves of the barrels that will allow the escape or the moisture that is constantly passing off from the newly gathered fruit. We hazard nothing in the statement that one-half the fruit sent to this market this season, so far, has been materially injured from this cause. The effect of confined vapor upon the apple is not at once apparent. The fruit appears uncommonly bright on the first opening—but as the surface dries off the apple begins to grow dull looking, and if a light skinned apple, in a day or two will present the appearance of half-baked fruit.

But this steaming from confinement not only injures the sale of the fruit, but to the great dis-

appointment of the consumer, his fruit does not keep as he supposed it would, and as the variety of apple he purchased led him to suppose it would. Premature decay is sure to follow as a consequence of this want of ventilation.—*Chicago Fruit Dealer.*

*For the New England Farmer.*

#### DOG VERSUS CUR.

MR. EDITOR:—The correspondence in your paper is generally so rational and moderate in its tone, that I was somewhat surprised to read "C.'s" bigoted and illiberal war cry, or rather "snarl," at the faithful animals of which he evidently knows nothing, and whose virtues I fear he is unable to appreciate. "C.'s" assumptions are too groundless, his arguments too flimsy, and his propositions too intolerant to enlist many in his valiant crusade against our affectionate and defenceless defendant. I have yet to learn—for I cannot take "C.'s" assertion for proof—that *you* have declared war upon dogs, that New England loses millions annually by dogs, or that the presence of dogs, in a district, is at all incompatible with the raising or keeping of sheep. The latter assumption is entirely contrary to my own experience of facts; as I know many districts where sheep are largely and successfully raised, and where, at the same time, dogs are far more numerous than they are in the neighborhood of Boston; and "C." will have some difficulty in persuading the public that cows indiscriminately allowed on the highway would occasion less inconvenience to passengers than dogs do. The law proposed, or rather commended, by "C.," will never be enacted in a country where the people are their own law-makers; and even a despot would hesitate before issuing a decree so certain to arouse the indignation of a large proportion of the community.

So much for "C.'s" indiscriminate attack; but, in defending the respectable portion of the canine community, I would not be understood to justify the keeping of ill-bred, ill-fed and uncared for curs. These are the animals which bring dishonor on their race, through no fault of their nature, but because they are expected to maintain a character for honesty, while their only alternative is to steal or starve. I think it probable, to hear C. talk, he would dispose of the other affairs of the country quite as summarily as he does of the dog question; but, fortunately for us all, in this land of liberty, no man can enact laws to bind his fellow without their co-operation and consent, and I certainly prefer the law enacted by the chosen sages of Massachusetts, in council assembled, to the measure so modestly suggested by your correspondent. It is not the intelligent, respectable looking dog, licensed, collared, and whose name and residence are duly registered,

"Man's firmest friend,  
The first to welcome, foremost to defend;  
Whose honest heart is still his master's own,  
Who labors, fights, lives, breathes for him alone,"

—it is not this dog, I contend, who should be called "the worthless beast," and hunted like a wolf or a wild cat; indeed, I can scarcely sympathize with your correspondent in his bitterness against any of a race whose virtues are all their own, while their vices are the result of their education and necessity.

At the same time, I admit the impropriety and inconvenience of permitting the indiscriminate breeding and excessive increase of dogs; and I rejoice to think that the present dog law of Massachusetts, if enforced as it should be, is admirably calculated to restrain these within due bounds. At all events, let us give the law we have a fair trial, before we ask for another and a more stringent one; and, lastly, let us not overlook the difference between the noble, generous dog, and the yelping, nameless, homeless cur. J. C. D.

Weston, August 12, 1861.

REMARKS.—We have visited pretty extensively among the farmers of New England, and do not remember a single instance where the rearing of sheep was spoken of, but complaint was made of their destruction by dogs. Indeed, the remark was often made, “dogs have driven out sheep altogether—we do not attempt to raise them.” This, also, is the testimony of the members of the State Board of Agriculture, who represent every part of the commonwealth. They represent dogs as a scourge to the farmers. We attempted to introduce a fine breed of sheep into the town where we reside, but were utterly discomfited by a neighbor’s dog.

#### CRACKS IN HORSES’ HOOFS.

The following is Dr. Dadd’s mode of treatment of this troublesome complaint, consisting essentially in sewing the parts together, by means of a strong wax cord: “The best practice would be, first, to poultice the foot, (supposing the shoe to have been removed), with a view of softening the hoof and removing any extraneous matter that may have insinuated itself into the crack. When the hoof is sufficiently softened, it should be cleansed, examined, and dressed with tincture of myrrh. Select a spot about an inch below the coronet, and with a small gimlet bore a hole through the two edges of the crack, and another one inch above the toe. A straight needle, armed with a strong ligature, is to be passed through the upper holes, brought over and through a second time; thus closing the two edges of the fissure by what the sailors term a “round turn.” The same thing is to be repeated at the toe. The assistant, by the aid of the pincers or otherwise, shuts the crack as close as possible, the ligatures are each drawn tight, and tied with a surgeon’s knot. A small quantity of blister ointment is to be besmeared over the crack, and bar-shoe applied. The cure is accomplished in two ways—first, by fusion; secondly, by the growth of new horn from the *matrix* downward. After the edges have firmly united, cut the ligatures, and pare the uneven edges of the *cicatrix* level with the surrounding parts, and the cure is completed.”

HOW TO BUILD CISTERNS.—The attention of the reader is called to an article on this subject in another column. To know how to build a cheap and substantial cistern, is a knowledge worth possessing.

For the New England Farmer.

#### FLYCATCHERS AND THRUSHES.

Interested in anything relating to our native birds, I have been much pleased with the articles upon the “Birds of New England,” published in the *Farmer* over the signature of “J. A. A.” His statements generally agree with my own observations, extended over a number of years. To his list of Flycatchers, I would add the Little Tyrant Flycatcher, (*Muscicapa pusilla* and *Tyrannula pusilla*, Swainson,) closely allied to *Acadica*, but smaller—measuring about 5 inches in length and 7½ in extent. With regard to the Thrushes, their shy, retiring habits and general similarity of size and color render it very difficult to distinguish the several species. Your Vermont correspondent seems to have studied the Hermit Thrush very faithfully; “Adolphus”—though following Nuttall rather closely—has attended to the Wood and Wilson’s Thrush, but passes somewhat slightly by the other species, and I am not quite satisfied with his disposition of the synonyms.

In accordance with “J. A. A.” I have found in the vicinity of Boston four well-defined species:

1. The Wood Thrush—(*Turdus Melodus*, of Wilson, *T. Mustelinus*, of Bonaparte, Audubon and Nuttall.) This noted vocalist, whose song and habits are well described by Wilson and Audubon, is sparingly resident here through the summer, usually frequenting wild, rocky woods and shady glens, where its peculiar, solemn, tinkling warble is often heard. This species is distinguished from the other small spotted thrushes, by its larger size, measuring 8 inches in length, and by the more decided spots of blackish brown which are disposed in chains on the upper part of the breast and sides of the body. The color on the head inclines to rufous, and on the tail to olive, the reverse of the Hermit.

2. The Hermit Thrush—(*T. Solitarius*, of Wilson, *T. Minor*, of Bonaparte, Audubon and Nuttall, *Merula Solitaria*, of Swainson.) is smaller than the Wood Thrush, measuring 7 inches in length and 11 in extent; upper part olive brown, inclining to reddish brown on the tail, a mark which distinguishes it at sight; breast nearly white, with decided triangular dark brown spots. This species is not found in this vicinity during the summer months, but is seen here as late as the 25th of May, and again in the autumn, remaining until the last of October. This bird, supposed by Audubon and Wilson to be destitute of song, has a note which closely resembles that of the Wood Thrush, and has probably often been mistaken for that bird,—and this may account in part for the great difference spoken of in the notes of the Wood Thrush—although I am well aware that individuals of the same species vary very much in their powers of song; it is louder, not so flowing, and as I think not equal to the true Wood thrush. Mr. Paine’s observations on this species, in the *Farmer* of August 3, are undoubtedly correct—and his account of the nest and eggs corroborates Dr. Brewer, who has paid much attention to this subject, and who says the nest of the true Hermit Thrush is placed on the ground and that the eggs are unspotted.

Wilson’s description of the Hermit Thrush certainly applies to this bird, but his figure, account

of the nest and eggs, and the nests on trees and spotted eggs of Audubon appear to belong to the next species.

3. Olive Backed Thrush—(*T. Olivaceus*, Giraud, *Merula Wilsonii*, of Swainson.) This species, described by Swainson as the Wilson's Thrush, which, indeed, it much resembles, and which Audubon considered a variety of the same—caused by sex or age—is undoubtedly a distinct species, distinguished by its uniform olive brown color above—throat and breast more decided buff or salmon color—legs shorter, stouter, of a pale brown color—bill shorter and more compressed. This is probably the kind mentioned by Audubon in his account of Wilson's Thrush as equalling the Wood Thrush in its song. So far as I have been able to determine, its note has a general resemblance to the Wilson's, but is superior to it in richness, though not equalling the Wood Thrush. According to Brewer, it builds its nest on trees; eggs spotted with brown on a blue ground. As stated by "J. A. A.," I have found this bird while here to be less suspicious than the other Thrushes.

4. Wilson's Thrush—(*T. Mustelinus*, of Wilson, *T. Wilsonii*, of Bonaparte, Audubon and Nuttall, *Merula Minor*, Swainson.) This species, whose peculiar whistling notes, often heard until quite dark, and whose shy, retiring habits are well described by Nuttall, is a constant summer resident here, found in solitary woods, usually in the vicinity of a stream or pond. It is distinguished by its uniform tawny color above—long slender legs—the spots on the breast less decided than either of the other species. It measures 7 inches in length, not 10, as stated by "J. A. A.," who probably followed a mistake of Wilson instead of actual measurement, and 12 inches in extent.

5. The Water Thrush—(*Seiurus Aquaticus*, Swainson.) is seen in this vicinity through the month of May, and early in August; late in the spring it has a loud and pleasing warble, resembling in part the note of the American Yellow-bird or Goldfinch. It also often utters a sharp, clicking note like the striking of two pebbles.

The Canada Flycatcher is seen here some seasons as late as the first of June feasting on the destructive canker worm. Its note resembles somewhat that of the summer yellowbird, or that of some of the redstarts, but is more full and musical. It measures 5 inches in length and 8 in extent of wings.

I. SPRAGUE.

Cambridge, Aug. 17, 1861.

#### METEORS.

Saturday night there was an unusual number of meteors or shooting stars. They were visible at times in all parts of the heavens, being most numerous, however, in the southwest. Those observed in this quarter radiated from a point about ten degrees south of the zenith. Between eleven and twelve they were most numerous, appearing in rapid succession, and frequently two and three being visible at a time. One was very large and brilliant. The head or nucleus was five times the apparent size of Venus, and emitted a very bright light. It was followed by a trail about five yards in length, which was visible nearly a minute. Others appeared like stars of the first mag-

nitude, and were also followed by trails which were visible from ten to thirty seconds. Those which were smaller were not followed by any trails.

At intervals throughout the night, the portion of the heavens near the zenith, described above, continued to send off meteors. In other portions of the heavens they were not so numerous, and appeared at less regular intervals. Some were very small, and were visible only for a moment. Most of them shot downward in different directions, and at various angles. We noticed three which moved in a horizontal direction. They were not so bright as most of the others, being of a yellowish tinge. Their motion was not as swift, their velocity being less than half as great as that of those which moved downwards. One, for a moment after it became visible, had an undulating motion, and then moved on in a straight line.

There are two well-ascertained periods when meteors appear in showers—Aug. 9 and 10, and November 12 and 13. We are now in the August period, and close observation for a few nights will probably discover more than the usual number.—*Providence Journal*.

#### THE APPLE WORM.

Everybody knows—when we have apples—how very generally they are infested with a worm; not the worm proceeding from the egg deposited by the curculio, but from an egg deposited in the blossom, and thus growing with the growth of the apple. It is a fat, sleek-looking, white worm, often an inch in length, which eats to the very centre of the fruit, and frequently in transverse directions, throwing its offal out at the calyx, or through the sides of the fruit. The centre is sometimes filled with this matter, so that the whole apple is thoroughly ruined.

In the autumn of 1859 there was a fair apple crop, yet scarcely ten in a thousand apples, could be found free from this worm!

A few days since, Mr. J. W. WILCOX, of West Roxbury, brought us a bottle of these worms, eighty odd in number, which he caught in two nights under a single tree. He learned how to catch the rascals in the following manner: Several years ago, while engaged in doing carpenter work, some timber and boards were left under an apple tree, lying in various positions upon the ground. Upon removing this lumber, he found that wherever two pieces of board or timber lay pretty closely together these worms had crawled in in considerable numbers, and seemed to be well pleased with their snug retreat. This served to give him the idea of a trap which has proved the death of thousands of the offenders.

He places two boards, each about three feet long, and of a pretty smooth surface, not planed, however, together, under the tree and near the stem. These boards are visited each morning

and the worms found there destroyed, and the boards put back into position again. Three sets of the boards are usually placed under a tree, on its different sides, which, Mr. W. says he thinks, will soon draw the worms from the fallen apples into their beneficent shelter! He also gave it as his opinion, that all old apple trees under the walls and in pastures that are not attended to, are so many nurseries of these pests, and that if they were cut down, or all the fallen apples were eaten by swine or cattle, and the same care observed with cultivated trees, this great evil would be abated or entirely removed.

We hope ten thousand traps will be set at once, and clean off these vermin while the apple crop is not abundant.

*For the New England Farmer.*

#### WINTER BARLEY.

FRIEND BROWN:—In the *Farmer* of August 24th, I saw that you mentioned my name in your remarks on Winter Barley.

I will say from what I have seen and heard that I consider it a great acquisition to our cereal grains. There are several points to be taken into consideration in regard to it:

First, its early maturity, thereby escaping almost all danger of mildew, rust, weevil, &c., which are liable to attack all late grains.

Second, my experience has proved it to be very hardy, when sown in good season, say the last of August or the fore part of September.

Third, it is very prolific.

The gentleman of whom I had my seed, wrote me that the average yield on the lightest sandy soil was fifty bushels per acre; but I suppose the soil of Niagara County, Western New York, is somewhat better than our pine plains in old Middlesex.

In the Fall of 1859 I received some seed from a friend in Niagara County, which I sowed very late, barely giving it time to come up before the ground froze. The Spring following was very dry, and when the rains came in the fore part of June, there was apparently but a vestige of life remaining in the plants; but to my surprise, they started, and about the middle of August, I harvested ten bushels of barley on sixty square rods of ground. This weighed fifty pounds per bushel. The soil was a sandy loam, not rich, on which I had raised a crop of corn that season, harvesting it some time before sowing the barley. I feel confident that if I had sown any other grain as much out of season as I did the barley, that I should have had no return.

Now for the second crop. Some time in August, 1860, I plowed the plot on which the barley grew for the purpose of destroying the weeds, not thinking of the few scattering grains; and left it unbarrowed, intending to plant the following Spring with early potatoes. As time passed, there came here and there a blade of barley. I did nothing to it, and its vigorous growth further determined me (thin as it was and without manure,) to let it alone. The result was that on the 29th of June last, I reaped eight bushels of good clean barley from the few scattering grains,

plowed under as above. I have no doubt but on a part of the piece the yield was at the rate of sixty bushels per acre. Some of the barley threshed, and in the straw, can be seen at Nourse & Co.'s, Merchants' Row, Boston, the sight of which will satisfy any one better than any story which I can relate. I would recommend sowing it by the first week in September, at the rate of one or one and a half bushels per acre, covering it from three to four inches. The greatest number of heads I found on any one stool was eighty-five. In height it was from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  feet.

Concord, Aug., 1861.

J. B. FARMER.

REMARKS.—We saw the barley alluded to above, several times during its growth, and found that it made a wonderful development from the smallest beginnings. A single kernel had tillered out, in some instances, to a broad and vigorous stool, giving fifty, sixty, seventy and even upwards of eighty heads, all springing from a single grain. We agree with Mr. F. in the belief that this barley will become a profitable crop for us.

#### THE ROOT FAMILY.

Do you know who are the most industrious and hardest laborers in the world? The root family. They work night and day, summer and winter, without stopping and without tiring. What they have to do, they do without grumbling or discontent, or asking any why or wherefore.

Roots are of various forms; sometimes they are in slender threads, to penetrate loose, sandy soil, like the grasses; sometimes wedgelike, as in beets, to pierce firm and solid ground; sometimes in long, flat scales, to fasten themselves to the bare rocks. But, tender and delicate as they often seem to be, they possess wonderful strength; to the forest trees they serve as gigantic anchors, chaining them to the solid earth and supporting them against the battling of the storms. They dive down into the ground, and let nothing hinder their progress. The roots of a large chestnut tree on Mount Etna, under which a hundred horsemen can find shelter, penetrate through rocks and lava to the springs at the very foot of the mountain.

Roots serve not only as fastenings, they pump up the nutriment which the plant needs, and supply it with drink and food. There are delicate fibres at the end of the roots, called spongioles, which have minute holes, opening and shutting, to take in or reject what is necessary for the health and life of the plant, and they know what to take, and what to leave. Suppose wheat and peas to grow side by side—the spongioles of the wheat are open to receive all the flinty matters of the soil which the water can take up, while the spongioles of the pea will not have the flint, but prefer lime, and take whatever lime the water of the soil may contain—the wheat and the pea having different tastes for their dinner. Sometimes they draw nourishment directly from the water, as in duck weed, when each small leaf has its own little root hanging from under the surface.

In the mangrove of the tropics, they form an

enormous net-work in the water, and catch as in a seine all the matter which floats down the streams when the tides and floods go down. Shell-fish are often found among the roots, accounting for the stories of some of the earlier discoverers of America, who said the oysters grew on the branches of trees. Sometimes the roots have no home in land or water, but take themselves to some strong and healthy trees, where they creep through the crevices of the bark into the wood, and feed upon the very life of the tree. These plants are called parasites. A stately palm is often seen covered with the creepers of a parasite, which at last eats out its very life, and the noble tree dies in its treacherous embrace. Roots, wherever they are, in the dark earth, or under the restless waves, or on the bark of a foreign tree, are always at work, and rough usage does not quickly destroy them. A common maple tree may be turned bottom upwards, the roots in the air, and the branches in the ground, and it will yet live. The first orange trees in Europe, which are in the city of Dresden, came as ballast, without root or branches, in the hold of a German vessel. A curious gardener, anxious to know what the new wood was, planted them, and, through mistake, planted them upside down. But in spite of this sad treatment, the brave little trees have grown and flourished beyond all other orange trees on the continent. Do not even the roots in the earth seem to say—"The hand that made us is divine?"

*For the New England Farmer.*

#### CRAMP IN COW---WARTS ON HORSE.

MR. EDITOR:—In the *Farmer* of August 3d, Mr. Gates wishes to know what to do with what he calls cramp in cattle. In the first place, every man who has to do with horses and cattle, should always have on hand a few medicines, as a valuable life may be frequently saved by having things handy. Some time ago I named a few remedies which it would be well for the farmer to have on hand—aconite, arnica, nux vomica, &c.,—what is called the mother tincture.

Now for Mr. Gates' cow. First, if she is fed high, cut this down to grass, and see that she has plenty of good, clean, soft water. Put her in the stable nights, with free circulation of air, but so the patient gets no chill, until she gets well. I should keep her out of all rain and storm, and by all means keep her skin clean and open. Second, medicine. Put a teaspoonful of the tincture of arnica into a quart of water, and bathe the parts affected, night and morning, and at the same time give the cow internally ten drops of aconite, each morning, in her drink; and if not every way better in a few days, give her ten drops of arsenicum at night. This course, with such treatment and care as otherwise would suggest itself, followed a few weeks, I should expect to cure the cow with cramp.

In the same paper with the foregoing, Mr. Jameson wants something which will cure warts on a horse. This is a frequent disease with both horses and cattle. It is a disease of the skin—but nature is evidently making an effort to get rid of some constitutional trouble. In your remarks to Mr. Jameson's inquiry, your suggestions are good. Where the warts are large, the

quickest way to get rid of them is by the knife, or ligature. I have often removed them by rubbing them with whale oil, morning and night; this will cure nine cases out of ten; keep the skin clean and open by the use of card and brush; at the same time feed well,—and to remove the constitutional disease, I have never found anything equal to sulphur and arsenicum, in doses of ten drops each night, alternating. These doses are for adults. External applications will do for the young as well as old.

At a future time I will give the readers of the *Farmer* a list of a few simple remedies which every humane man who has the care of horses or cattle, would do well to keep on hand—the whole costing not more than two or three dollars—and a general plan for their use, Mr. Common Sense being the doctor. N. Q. T.

*King Oak Hill, 1861.*

#### WHEN TO GATHER CROPS.

This is an important topic. To cut grass when it is "ripe," and grain when ready to shell out, is far from economy. Careful observation and experiments, as well as chemistry, teach us that all grass and grain crops, to be consumed as food for man or beast, should be cut down before maturity. Many of the roots, also, are better for premature gathering. Potatoes may well be ripened in the ground; and, were it convenient to make the separation, we should say let grain, designed only for seed, remain upon the native stalk, in the field, until nearly ready to fall off. As we have said, experiments carefully made prove conclusively that wheat, for example, if cut six to twelve days before full maturity, yields not only a greater bulk and weight, but more and better flour, than if allowed to stand until "dead ripe." We have frequently published the direct trials which have established this fact, and will not take space to repeat them here. Let us look a little into the *reasons* for such a result. It will not be disputed that a pound of gum, or sugar, or starch, is better food than the same amount of wood or woody fibre. Much the largest proportion of the nourishment of wheat or corn, or other grain, is derived from the starch it contains. More than three-fourths of the entire bulk of wheat flour, for example, is really pure starch. The same may be said of corn meal. But all grains contain more or less of woody fibre, in the shell.

Wood, sugar, starch and gum are composed of precisely the same *elements*, and these are nearly in the same proportion. The difference in form and properties is chiefly in the arrangement of the elements. Yet wood is nearly indigestible, and of course fails, in part, to yield nourishment, while sugar, starch and gum are easily digested, and almost their entire elements furnish nutriment.

Examine grain in the milk, and it will be found to consist almost totally of starch, gum and sugar, the abundance of sugar giving it a sweetish taste. Let this grain ripen, and the starch, gum and sugar are hardened, and in part changed to woody fibre, that is, husk or bran. But cut the grain while scarcely out of the milk state, and you stop the natural change into woody matter, and thus secure a large proportion of the desired

starch, sugar and gum. It is well known that the earliest flour made from first cut grain possesses a peculiar sweetness. Corn picked while still soft, and dried, retains its sweetness. The only point to be looked to is, not to cut grain before it attains its full development of material. This point has been found to be just at the period when it commences hardening. No grain should be allowed to stand a day after it becomes so solid as to require a gentle pressure to crush the kernel between the thumb and finger-nail. This rule applies to wheat, oats, and indeed to all cereal crops. Gathered at this time, which is usually eight to ten days before perfect ripening, there will not only be more and better nutriment, but the yield of grain, and especially of flour, will be from five to ten per cent. greater, and often more, than if the cutting had been deferred ten days. The decidedly superior value of straw cut green, is another important item to be taken into account. The increasingly high price of hay, and the advance in the demand and value of stock, render it important to give more attention to the preservation of straw. Wheat or oats straw and corn-stalks, if left standing until fully mature, are little better, and little else, than so much wood; but stop the ripening process as soon as it is practicable to remove the grain, and you secure straw and stalks worth one-fourth to one-half their weight of hay, as the latter is ordinarily cured. Would it not be better to run the risk of getting a few pounds less of grain by too early gathering, if thereby you secure a greatly superior quality of feed in the straw?

The reasons for cutting grain early apply with equal force to all crops gathered for forage. Taste a stalk of grass just as it is losing its flower, and you will find it sweet, succulent and tender. A few days afterward, it is more like a dry piece of wood. But cut it down at the former period, dry it in small masses to prevent heating and fermentation, and it will retain much of its sweetness, and contain a large proportion of the sugar, starch and gum. We state an undeniable fact, one established by rigid experiment, that four tons of hay gathered just as the flowering season is over, will yield more *nourishment* than five tons gathered ten to twelve days later. We have the best authority for saying that one acre of grass, which, when cut fully ripe would yield 1,000 pounds of digestible nourishing matter, and 2,000 pounds of woody fibre, will, if cut 10 to 12 days earlier, yield from 1,500 to 1,800 pounds of nourishing material, and only 1,200 to 1,500 pounds of woody fibre. We will not stop to estimate what an immense saving would be effected to the country were the principles above stated thoroughly understood and practiced upon.

*Farmer's Journal.*

**OLD GARDENS.**—All gardens—especially old ones—should have a dressing of lime every five or six years. If before the lime is applied, they were dug twenty inches deep, and the subsoil thrown on top, the effect would be surprising. It would be doubly as productive. Ashes and salt, every three or four years, are also excellent. Many persons enrich their gardens heavily year after year with barnyard manure, and then wonder that their crops are annually growing less. If they

would follow our system of occasionally liming, ashing and salting, as we have often recommended—of course only applying one of these agents in any one year—the ground would soon be brought back to its original fertility.

Digging deeply the garden late in the fall, allowing the ground to lay in lumps, for the action of the frost through the winter, will also be found to have an excellent effect.—*Germantown Tel.*

*For the New England Farmer.*

#### ON THE CULTIVATION OF WHEAT.

Read before the Concord Farmers' Club in the winter of 1860-1.

BY ELIJAH WOOD, JR.

Among the different kinds of grain which form the principal nutriment of the civilized world, and to the culture of which civilization is even attributed by modern writers, the first rank is conceded to wheat; and also where the largest amount of the most expensive products of the earth are both cultivated and consumed, particularly wheat, we find a corresponding amount of intelligence as the result. Wheat seems to be really *the* grain for the world, and nothing has been substituted for it. The opinion has prevailed for a long time in New England, that it can be raised only on the strongest and best soils, while the land is new. The consequence has been that the cultivation has almost entirely ceased here.

Now what is the reason that we succeed on new land, but fail on the old, or upon that which has been long under cultivation? That we succeed in either case, affords evidence that there is nothing in our climate, the peculiarity of our seasons, or the nature of our soils, which renders it necessary that we should depend upon our Southern or Western neighbors for this necessary article of food. Must it not, then, be attributed to improper management, or to neglect in preparing our soils for this particular kind of grain? I am of the opinion that where it was once raised when the land was new, it can be now raised with a probability of success; that the principal cause of failure has arisen from having exhausted the soil of that particular kind of nourishment which is adapted to its growth. New land is filled with vegetable matter. Restore the soil of your old fields, by the application of vegetable manure, and they would again produce similar results. A better system of cultivation is being now introduced; more labor is bestowed on less surface than has been practiced. The *manures* best calculated for wheat, are allowed by all agriculturists, to be animal matter, and one of the constituent parts of wheat, (gluten,) exists in bones, urine, horn, night-soil, the refuse of the soap-boiler, the offal of the butcher, &c., and the proper application of these substances in sufficient quantities will ensure a good crop.

The common divisions are into bearded or beardless, into thin-skinned or white, and hard or flint wheats, or into white or red. The white yields the largest proportion of flour or starch, the flint, of gluten, which is the most nutritious part of the wheat. No advantage would come from my enumerating the various kinds cultivated. Every district, I suppose, has its favorite; and it is with wheat as with every thing else, that pub-



lic opinion is constantly changing. The results, too, with regard to the same kind of seed are different under different cultivation, and are materially affected by the season. It can hardly be expected that I can give any definite knowledge on this subject from my limited experience in two seasons, and with one kind alone. We have the record of more than one hundred kinds, but many more of winter than spring. I shall only speak in general terms of the two kinds.

Of *winter wheat* I have had no experience, and have not known of its cultivation in this vicinity, in the past twenty years, except by a very few farmers. I trust we shall sow more of the winter varieties, as they can be sown in a season of leisure, and are less liable to be injured by insects. The grain is heavier, and the same quantity yields much more flour, and of superior quality. The greatest objection to it, is its liability to be killed in early spring, by freezing and thawing, and this may be remedied in part by a different mode of cultivation. Sow before the middle of September, on a rich and well pulverized, loamy, and warm soil, and cover the seed at least two inches deep, and pass a roller over it, and you may safely calculate on a paying crop. Wet land will not mature wheat, neither will it rye. Dry, loamy lands, with a little descent, are the best for either. Some farmers think (judging from their work) that the fall grains may be sown any time before the snow flies. This is a great mistake. October is even too late, as the ground is then cold, and the plant, if it starts, has only a small and tender root, and is quite liable to be thrown out and destroyed by the frosts of winter. Another reason for sowing fall grain is, the work comes when we have more leisure time, and our teams are in full strength. Our springs, too, are extremely short, and it is difficult for the farmer to complete his work before the season of planting is over.

*Spring Wheat.*—Many of our farmers are now in the habit of raising spring wheat of the kind called Java, and some grow more than they can consume. It is quite productive, yielding from twenty to thirty bushels to the acre, and makes good bread, but not very white, like some of the winter kinds. I had a barrel sent me, as a present, from the State of Maine, in 1859, with directions for sowing. The original seed was found in some Java coffee, hence its name, and it was represented as being the surest kind in that State. The directions were to make a strong brine of salt and water, enough to cover the grain and something more. Stir it thoroughly, so that the impure seeds will rise; skim them off and let the wheat remain in the brine at least forty-eight hours. Do not be fearful of sowing the seed too early on account of cold. Get it in as soon as you can possibly work the ground, and sow not over seven pecks to the acre. Some have of late years prepared their ground in the fall, ready for the seed, sowing immediately after the snow leaves in the spring, even as early as the fifteenth of April, and succeeded well. The barrel of wheat sent me, was sown April 25th, 1859, on a black, loamy soil, with the exception of one-third of an acre, which was ledgy and sandy. The land was in a low condition, producing not more than one-half ton of hay per acre, and was plowed and planted with corn the year previous, with an application of thirty horse loads of compost manure

from the cellar, to the acre. Grass seed was sown with the wheat, and yielded the present season, not less than three tons to the acre in two crops.

## WHEAT FIELD, 1859.

Dr.

|  |       |
|--|-------|
| To carting 42 loads of manure, man and horse, 2 days.....                      | 4.00  |
| 42 loads of manure, $\frac{1}{2}$ to present crop, \$1 $\frac{1}{2}$ load..... | 21.00 |
| Man spreading same, 1 day.....   | 1.00  |
| Man and 2 horses plowing in same, 1 $\frac{1}{2}$ day.....                     | 3.75  |
| “ “ harrowing both ways, $\frac{1}{2}$ day.....                                | 1.50  |
| Man and horse rolling, $\frac{1}{2}$ day.....                                  | .50   |
| Man sowing both ways, $\frac{1}{2}$ day.....                                   | .33   |
| Man cradling ledgy part 33c, and 4 reaping 4-5 day.....                        | 5.00  |
| Man binding, 2 days.....   | 2.00  |
| 2 men and horse drawing to barn, $\frac{1}{2}$ day.....                        | 1.50  |
| Thrashing 43 $\frac{1}{2}$ bushels, 10c $\frac{1}{2}$ bushel.....              | 4.35  |
| Drawing to muster-ground and back 3 tons.....                                  | 4.50  |
| Drawing to Bedford 2 tons, 1 ton lost by waste.....                            | 3.00  |
| 2 $\frac{1}{2}$ bushels seed wheat, \$1,50 $\frac{1}{2}$ bushel.....           | 4.12  |

\$56,55

Cr. by 43  $\frac{1}{2}$  bushels of wheat, \$1,50.....\$65,25

Use of 3 tons straw, \$10..... 30,00

2 tons same straw sold, \$8..... 16,00—\$111,25

Balance.....\$54,70

The wheat raised in 1860 was in six different lots, and sown as fast as they could be got ready, commencing the middle of April and finishing the 10th of May, on land adjoining, in part, the field of the previous year, and much such land, except two acres, which were sandy and had been planted two years with corn. All had been planted with corn in 1859, with thirty loads of compost manure plowed in upon each acre, as near as we could calculate. These lots were in a low state of cultivation, as might be expected, for a portion of them had not been plowed in twenty years. One acre of the land was not manured for wheat.

## WHEAT FIELD, 1860.

Dr.

|   |         |
|---|---------|
| To man and horse carting 140 loads of manure, 7 days..  | \$14.00 |
| 140 loads of manure, $\frac{1}{2}$ to present crop..... | 70.00   |
| Man spreading the same, 3 days.....                     | 3.00    |
| Man and 2 horses plowing, 4 days.....                   | 12.00   |
| 13 bushels of seed, \$1,50 $\frac{1}{2}$ bushel.....    | 19.50   |
| Man and 2 horses harrowing both ways, 2 days.....       | 6.00    |
| Man sowing both ways, 25c $\frac{1}{2}$ acre.....       | 1.62    |
| Man and horse rolling, 25c $\frac{1}{2}$ acre.....      | 1.62    |
| Cutting with machine, \$1 $\frac{1}{2}$ acre.....       | 6.50    |
| Binding, \$1 $\frac{1}{2}$ acre.....                    | 6.50    |
| 4 men and 2 horses drawing to barn, 1 day.....          | 6.00    |
| Thrashing 145 bushels of wheat, 10c.....                | 14.50   |

\$161,24

Cr. by 145 bushels of wheat, \$1,50.....\$217,50

9  $\frac{1}{2}$  tons of straw, by estimate, \$10.....97,50—\$315,00

Balance.....\$153,75

From these two experiments, I have made up my mind that wheat is the most profitable of all the grain crops, and can be raised as easily as any. It was once thought that it must be grown on rich clays and heavy loams, but even on sandy land it is now grown extensively. I have taken no more pains than was taken with rye and oats the same seasons, except in the selection of the ground. I made a point to sow it where it would grow, on land neither too wet nor too dry; just such land as can be found on almost every farm in town. I meant to raise a crop that would compare with my neighbors.

There is a useful lesson to be learned from comparing the results of liberal and skillful cultivation. It stimulates the careless and indifferent to cultivate their lands better. We require to know what has been done. No good cultivator would willingly stop short of what has been reached by others, nor should this satisfy him if there is a possibility of doing better. In conclusion, I would say to the farmers of Concord, raise your own

wheat. You will find a great saving in your expenses. You pay too much of your money to middle men. On the principle of profit and economy, its cultivation ought to be encouraged. It is a preferable grain to accompany clover and herds grass for mowing purposes.

*For the New England Farmer.*

#### MAD AND GOOD-NATURED DOGS.

MR. EDITOR:—"Pray Keep up your War upon Dogs," was the piece that first caught my attention on taking up the *Farmer* this noon. Up here in the country, we have no dog tax, and no man is paid for the sheep which die or are killed from his flock; consequently, we do not have many sheep killed by dogs. Our dogs are a great benefit to us by driving stray cattle from our doors and the wild animals from our premises. I have a little dog, which "C." would shoot if he had the liberty, who has killed twenty woodchucks this summer, and I have not heard of his killing any sheep, although there are plenty round here. "C." says, "Why give a bounty for wolves and wild-cats while you allow protection to the dogs, that do more damage in one year than all the wild animals do in ten." How would they catch their wild animals without dogs? Would they put their own noses to the ground and follow them to their lair? I trow not. Why do not such persons as "C." give their full name and place of residence? or is he ashamed to be found complaining against that useful and noble animal, the dog? In no age has man found a more faithful friend than his dog or horse. Man was never so faithful to man as the dog to his master. The dog is a help to the farmer to protect his fields, to the merchant to guard his property from thieves and robbers, and to the citizen as a playmate for his children. Some dogs will kill sheep, I allow, yet the generality of dogs will not. Why not shoot every dove that flies over your premises, under the charge that he is no profit to his owner, and that he destroys your grain fields? Why not shoot a man's rabbits, under the same pretence? Are the persons who talk about dogs' damages the same that talk about the poor, abused crow, or are they somebody else? We have subscribed for the *Farmer* ten years, and I have seen much pro and con about the worthless dog. If you know Mr. "C.'s" address, please send this letter to him, or give it a place in your paper, that he may see it. I call on every friend of the dog to stand in his defence.

*Alexandria, N. H.* GEORGE F. HOLT.

REMARKS.—Nothing was made in vain. For everything that the All-wise Creator has formed, there is a proper place, where it may be made useful to man. With our correspondent, the dog may be so; but he must not think strange that others, who have suffered by the depredations of dogs, should think differently. Where game is abundant, and may be made useful as food, or where it is dangerous, a good dog may be useful to his master; but a man has no right to subject me to the expense and *danger* of keeping a dog to drive his cattle out of my fields or away from

my door. There is a law in New Hampshire which ought to regulate the matter of cattle running at large.

Our correspondent says, "The dog is a help to the citizen as a playmate for his children." If he could see the awful cases of pain and terrible death that we frequently find noticed in our exchange papers, caused by the bite of one of these "playmates," we think he would sometimes shudder on seeing one of his children frolicking with his dog. Two shocking cases—one of a man, the other of a child—have occurred in the city of Boston within a short time, where death ensued in its most frightful form, and similar ones are reported every week, if not every day in the year.

In most parts of Massachusetts, there is certainly no real use for dogs. We have no bitterness of feeling in this matter. Our rule is to leave every man to the enjoyment of his own notions, if they do not molest us or prejudice the public. We like dogs, and kept them until we became satisfied that, to us, they were both useless and dangerous, and since "poor Trim" died of a bullet, causing every eye in the family to be suffused with tears, no dog has been owned on our premises. We could say of "Trim" as did the soldier—

"My dog's the truest of his kind,  
With gratitude inflames my mind;  
I mark his true, his faithful way,  
And in my service copy Tray."

And "Trim" came to his end through his very faithfulness. He never allowed a strange dog upon the premises, unless accompanied by his master, and he never failed to drive them off, however large and ferocious they might be,—for if he found one that was likely to prove too much for him, like a lightning stroke, he would catch the fore paw of his enemy in his mouth, and put one of his sharp canines through the leg, just above the paw, and in an instant the stoutest mastiff was his prisoner. This was not a chance stroke, but his practice; and, if the dog were a large one, that terrible grip would sometimes continue for an hour.

One day, a large black dog was seen upon the premises, and "Trim," with his head up, and his large, bushy tail curled gracefully over his back, was warning him off in the true Pickwickian style; but the strange dog, disregarding the courteous warnings of "Trim," resented and resisted; upon which some skirmishing took place, some savage growls were heard, and not a little dog's hair was seen going down the wind! But he ejected him, large as he was, from the premises, and stood on the bank-wall snuffing the wind, the very personification of a hero who had just won a glorious field!

A few minutes later, in another part of the

neighborhood, there was a terrible cry of "mad dog, mad dog!" and sure enough, a "large, black dog" attacked a man, who sprang upon a horse standing by, then he attacked the horse, and in succession two men who were near. Of course, all sorts of weapons were put in requisition, but two or three charges of buck shot from an old Revolutionary musket, gave the poor brute his quietus. This was the second or third alarm that morning, occasioned by the attacks of this mad dog in our neighborhood. He bit several dogs, and attacked three or four individuals, but happily, did not bite the latter.

It was the heroic conduct of "Trim," in driving off this same rabid dog, that led to his untimely end—for no confidence could be placed in his soundness, after a combat with an animal known to be mad.

#### SEAL HUNTING.

The pursuit of the great Spitzbergen seal (*Phoca barbata*,) although it lacks the wild excitement of the chase of the sea horse, is a very delightful amusement. The great seal will never allow himself to be "caught napping." I do not think I ever saw a sleeping seal which did not, about once in every three or four minutes, raise his head from the ice and look uneasily around; so that he cannot be harpooned in his sleep, like his more lethargic congener, the walrus. Imagine this greater watchfulness on the part of the seal to arise from the greater cause they have to apprehend being "stalked" by the bears while taking their siesta; however this may be, recourse must be had to the rifle before the harpoon comes into play in the case of *Phoca barbata*, and to make good work with them requires the perfection of rifle-practice, for if a seal be not shot stone dead on the ice he is almost certain to roll or jerk himself into the water, and sink or escape; and as a seal never lies more than twelve inches from the edge of the ice, the most trifling spark of life is enough.

The only part of the huge carcass in which a bullet will cause the requisite amount of "sudden death" is the brain, and this, in the biggest seal, is not larger than an orange. A seal will seldom allow the boat to approach nearer than fifty or sixty yards, and a large proportion take the alarm much sooner. Every rifle volunteer and every gunmaker's apprentice who reads this will probably exclaim, "O, there's no difficulty in that; I can hit an orange every shot at one hundred yards!" This may be true, my gallant volunteer or skillful gunmaker, but you have not yet taken into account that the boat is heaving more or less from the motion of the waves, and that the slab of ice on which your orange is lying is heaving also; and this, upon consideration, you will admit increases the "difficulty" a little; neither Lord David Kennedy nor myself were altogether tyros in the use of the rifle before we began, but we found the difficulty considerable; however, after a few days we became adepts at it, and rarely missed shooting a seal dead. The rifles we both used were elliptical four-barrelled Larcasters of

forty-gauge. During the last one hundred or one hundred and fifty yards of the boat's approach to the seal the steersman alone propels it by gently paddling it with two oars, one eye on the seal and the other on his oars; if the seal looks in the direction of the boat, he stops rowing, and great care is requisite on his part to avoid coming against pieces of ice, which make a rasping noise, almost sure to attract the attention of the seal. I need hardly observe that the boat must also keep carefully to leeward, as the seal has an acute sense of smell; and if the advantage of the sun can be obtained in addition, the moments of *Phoca barbata* are probably numbered. I always knelt in the bow of the boat, and selected my own opportunity to fire, and, the moment the rifle was discharged, all the men rowed with their utmost strength to the spot, where, if the seal showed any symptoms of life, I always darted a harpoon into him; but, if he seemed quite dead, some one jumped out and struck the hack-pick into his head, and dragged him away from the edge for fear he should come alive again. This is not an unnecessary precaution, as I have known a seal, apparently stone dead, give a convulsive kick over the brink of the ice, and go to the bottom like a sixty-eight pound shot, while his proprietors, as they delusively considered themselves, were standing within two feet of him.

When the seal is fairly dead, all the men except one get on the ice, and with their knives they strip the skin and blubber, in one sheet, off his body in a very few minutes. The carcass or "krop" is then thrown into the sea, that it may not be mistaken for a live seal at a distance; the blubber is laid flat in the bottom of the boat, and you proceed in quest of more, or return to ship.

A full-sized Spitzbergen seal, in good condition, is about nine and a half or ten feet long, by six or six and a half feet in circumference, and weighs six hundred pounds or upward. The skin and fat amount to about one half the total weight. The blubber lies in one layer of two or three inches thick underneath the skin, and yields about one half of its own weight of fine oil. The value of a seal of course varies with the state of the oil market all over the world; but, at the time of which I write, oil being unusually cheap, they only averaged about five or six dollars apiece; but still the fact of the animals being of some use, contributed to render the chase of them much more exciting, as nothing can be more distasteful or unsatisfactory to the feelings of a true sportsman than taking the life of anything which is to be of no use when dead.—*Seasons among the Sea Horses.*

ADMINISTERING MEDICINE TO HORSES.—I consider the usual method of giving medicine to horses by drenching, as it is called, highly objectionable. In this process, the horse's head is raised and held up, a bottle introduced into his mouth, his tongue pulled out, and the liquid poured down. In his struggle, some of the medicine is quite likely to be drawn into his wind-pipe and lungs, and inflammation and fatal results sometimes follow. A better way is to mix the medicine with meal, or rye bran; make it into balls; pull out the horse's tongue, and place a ball as far back in his mouth as possible; then

release his tongue, and he will almost certainly swallow the ball. Or the dose may be mixed with meal and honey, or other substance that will form a kind of jelly, placed upon a small wooden blade made of a shingle, and thrust into the back part of his mouth, when he will very easily swallow it.—GEORGE BEAVER, in *American Agriculturist*.

LEAVES AS MANURE.

Leaf manure has long been held in high estimation by gardeners and floriculturists, as affording one of the best substances known as a food for plants. Many, however, regard it as a purely vegetable substance, whereas it is rich in mineral matters which have a direct and powerful tendency to improve the constitutional texture and character of any soil to which they may be applied. The alimentary substances which contribute to the sustenance and growth of vegetables are, for the most part, taken up in a state of solution by the roots. In this condition all of the mineral ingredients discovered in plants are introduced into the system; such, for instance, as silex, lime, potassa, magnesia, alumina, &c. The sap, which is the medium of this transmission and assimilation, passes into the leaf, where the watery particles are thrown out by evaporation through the minute spiracles on the upper surface of the leaf, and the mineral matters retained and distributed through the plant, and in part through the vascular structure of the leaf itself.

To illustrate more fully the truth of the position assumed, we present the following analysis of the leaves of the pear tree, plucked in May, immediately after the falling of the blossoms:—

|  |        |
|--|--------|
| Carbonic acid.....   | 11.560 |
| Silicic acid.....  | 1.750  |
| Phosphates.....  | 25.650 |
| Lime.....  | 4.715  |
| Magnesia.....  | 4.500  |
| Potash.....  | 18.950 |
| Soda.....  | 15.150 |
| Sulphuric acid, chlorine, and organic acids, not determined..... |        |
|  | 81.715 |

By comparing the results of analyses of the same tree made in the spring and fall, it will be found that the older the leaf is the greater will be the amount of mineral matters contained in it. It will also be found that the foliage of trees contains more mineral matter than the solid wood of the trunk.

In the matured foliage of the elm, (*Ulmus Americana*), upwards of eleven per cent. of earthy matter—ashes—may be found, while the solid wood contains less than two per cent.; he leaves of the willow more than eight per cent., while the wood has only 0.44; those of the beech, 6.67, the wood only 0.33; those of the European oak, 4.06, the wood only 0.22; those of the pitch pine, 3.13, the wood only 0.27 per cent.

These facts demonstrate, conclusively, that the

application of leaves as a manure must be succeeded by advantageous results. Every leaf applied in this way restores to the soil something of which it has, in the process of vegetation, been deprived. In this way the mineral ingredients of the soil are forced through a certain routine, and a constant circulation, or reciprocity of action, is kept up between the soil and the vegetable beings it supports and perfects.

Entering the sap in solution through the mouths or spongioles of the terminal rootlets, they circulate through the system, and are ultimately deposited in the substance of the leaf, which, in due course of time, falls to the earth, and by its decay restores them once more to the soil, and in a condition the most favorable for again travelling the circuit in which they are destined endlessly to revolve.

The soils of our forests, it is well known, never run out, or are so far depreciated as not to be able to supply abundant aliment to the gigantic vegetation they are found to support. The reason of this is obvious. They annually receive back the greatest portion of the mineral constituents of the trees, together with no inconsiderable quantity of organized matter, derived from the atmosphere.

Were the leaves to be removed every autumn from the forest lands, the same as grain, grass, and root crops, are removed from arable soils, the impoverishment consequent upon such a course would be no less obvious in the one case than in the other; they would “run out”—the vegetation would be weak and sickly, and to support it, we should be under the necessity of applying, annually, large and increasing quantities of manure.

Leaves unquestionably afford a rich material for manure, and no farmer who has a wood-lot in the vicinity of his farm, should neglect to accumulate large quantities, to be used as litter for his animals during winter, or as a coating for his yards and other enclosures where animals are confined, and where the leaves will be in a situation readily to absorb the liquid voidings, and thus be reduced more speedily to the condition of aliment for growing crops. No compost heap should be formed without them, where they can be obtained, and compost made exclusively of them and other decomposable vegetable matters, will be found not only an economical, but efficient aid of fertility on any and every soil.

CURE FOR CATARRH.—The following simple remedy has been used with great success by one long and severely troubled with this annoying complaint.

Take, say one part pulverized loaf-sugar to two parts pulverized camphor, and mix them thoroughly together, and use as often as the patient

wishes in the form of snuff. This simple remedy followed for a few months, has effected a cure in the case above referred to, entirely beyond expectation. Should the camphor be too powerful or not enough so, reduce or add a small quantity as the case may require, as it is desirable that the camphor should be the principal agent.

#### EXTRACTS AND REPLIES.

##### HARVESTING POTATOES.

I suppose, in this free country, you expect and wish for a free expression of opinion, provided only no treason is lurking about, even if it be in opposition to your own. With this view I shall proceed to differ from you a little in the matter of harvesting potatoes.

My experience is in favor of digging as soon as ripe, for the following reasons: If we have heavy rains late in autumn, the ground does not dry as readily as in August or early in September, and consequently, adheres to the tubers in the form of mud, and I think they are not near so mealy after lying in the saturated soil for several days as they frequently do. They are also liable to become scurfy if left after becoming fully ripe. In some cases, too, they are exposed to the depredations of rats and worms.

Another consideration of some importance, is that we frequently have more leisure at the time when they ripen, than late in fall, and there is no necessity for hurrying to get them out of the way of frost.

These remarks may not apply to some localities where the soil is very dry and the facilities for good storage are deficient.

I would suggest that the soil will be much less impoverished if the tops are covered while digging potatoes, especially when dug before they are dried up. This may easily be done by throwing them into the hill last dug and then hauling the earth on them from the next hill. No trace of them will remain in spring except vegetable mould.

W. F. BASSETT.

Ashfield, Aug. 27, 1861.

##### CAUTION—WHEAT.

In one of the numbers of the *Farmer* there was a communication from "E. L. Coy," stating that if any one would send him a few post-office stamps he would send them a package of sweet German turnip seed. I sent the stamps but received no seed. I wish you would mention this, that others may not get served as I have been.

I have a piece of wheat, about one-half of which is covered with the plant-louse, as many as two hundred on a head.

Hay plenty—other crops light.

What is the price of bone meal, and where can I get it the handiest?

WILLIAM OXTON.

Thomaston, Me., Aug., 1861.

##### DISEASE AMONG THE TURKEYS.

I wish to inquire whether any of the readers of the *Farmer* have been troubled with a distemper among their turkeys. I had one hundred very fine young turkeys of the large variety, in one flock; they were doing finely till about two weeks ago, when I noticed that some of them were

drooping, and since then about thirty have died. I have tried different remedies, but to no purpose; they droop around three or four days, some of them eating up to the last hour before they die. Their crops are full of grain and bugs, as if they did not believe in dying hungry. If any reader of the *Farmer* can suggest what will be beneficial, I should like to hear it. A. W. WILCOX.

Poultney, Vt., Aug., 1861.

##### STRAWBERRIES AND GRAPE VINES.

I wish to inquire in regard to the best kind of strawberries for cultivation among the several varieties offered to the public. Which affords the most fruit, and which the best quality?

Are there any circulars printed describing the manner of cultivation, time of setting, &c.? If not, can you give some information on the subject. If there is any material difference between the Bunce, Cutter Seedling, Austin Shaker Seedling, in what does it consist, and which has the preference?

I should also like to be informed if a large and thrifty barren grape vine could be made to bear.

Fishersville, Aug., 1861.

SUBSCRIBER.

REMARKS.—During the month of August, just passed, we have given all the information needed by any one, to go into the cultivation of the strawberry. We know of no way to make the barren grape vine prolific but by grafting it.

##### THE PEAR BLIGHT.

I have a fine pear tree that has been suddenly attacked with the fire blight. I should like your opinion in regard to the treatment of the same. All I have ever done has been to cut off the part affected close to the stem or branch.

Worcester, August, 1861. G. H. PERRY.

REMARKS.—We know of no other remedy than the one you have applied. Barry says—"The only remedy is, to cut away instantly the blighted parts, into the sound wood, where there is not the slightest trace of disease, and burn them up immediately." He further adds, that, "some special applications, such as coal, cinders, iron filings, copperas, &c., have been suggested, but no evidence has yet been produced of their efficacy."

##### A BROTHER QUILL'S OPINION.

I cannot get along without your advice. I will publish your advertisement, notice you, exhibit you, keep you and have you bound, copy from you, credit you and love you, if you will make your visit to my office. If any back numbers can be spared, let them come with you. Try me. and see if I do not treat you handsomely.

##### ESSEX PIGS.

I wish to inquire through the *Farmer* where I can get a pair of full blood Essex pigs.

Bradford, Vt., 1861.

A SUBSCRIBER.

REMARKS.—Three or four years since this breed of swine was in the neighborhood of Boston—but recently we have seen none.

### SOWING ONIONS IN THE FALL.

Many farmers and gardeners—especially those who wish to have their onions ready for the market towards the close of spring, or commencement of summer—sow the seed in autumn. From the last of August to the first half of September is probably the most favorable season for this business, although a week or two earlier or later will not essentially affect the crop. The plan is thought judicious by many on several accounts.

In the first place, it enables the grower to occupy the soil for the production of a valuable and marketable product, from which a previous crop has been taken, and which, but for this system of alternation, would remain idle for a considerable portion of the year. Onions may be sowed after a crop of early peas, beans, corn or turnips. In the second place, it will enable him to obtain an early crop, which will be ready for market several weeks before his neighbors', who follow the old practice of sowing in the spring. There are at present but few vegetables which yield a larger and more certain profit than the onion. It almost always commands a fair price and a ready market, and for family use, especially during winter, is one of the most wholesome, as well as palatable vegetables with which our tables are supplied.

By clearing the surface of the soil, stirring it to the depth of three inches, by means of an iron-tooth rake or other implement, and manuring with soot, charcoal, gypsum, house ashes and lime in equal proportions, a good crop may usually be secured. The compost should be applied previous to sowing the seed, say one bushel to the square rod, and as soon as the plants make their appearance, the same material should be sown upon them. In the spring, as soon as the soil is sufficiently dry, the beds should be top-dressed with the same, or with soot and plaster, or if soot cannot be procured, charcoal finely pulverized by passing a heavy roller over it on a firm floor, will be found an excellent substitute. Irrigating with stale urine, or with soap-suds fresh from the laundry, has an excellent effect upon the crop.

In Scotland, gardens are shown where the onion has been cultivated with success for a series of upwards of seventy consecutive years, without the ground being plowed or spaded, and with no other stimulant being applied than coal dust, ashes and soot.

A gentleman informs us that he has seen onions four inches high by the last of September, and more vigorous, apparently, than those of the same age in the spring.

The cold of winter has no other effect upon the crop than merely to arrest the growth, and as soon as the frost is out of the ground in the spring, and before the temperature of the atmo-

sphere is sufficiently genial to stimulate the circulation of sap in less hardy vegetables, the onions commence growing, and continue to increase in size till mature, without injury from disease or debility of any kind.

### THE INDEPENDENT FARMER.

Let sailors sing of the windy deep,  
Let soldiers praise their armor,  
But in my heart this toast I'll keep,  
The Independent Farmer.  
When first the rose, in robe of green  
Unfolds its crimson lining,  
And 'round his cottage porch is seen  
The honeysuckle twining;  
When banks of bloom their sweetness yield  
To bees that gather honey,  
He drives his team across the field,  
Where skies are soft and sunny.

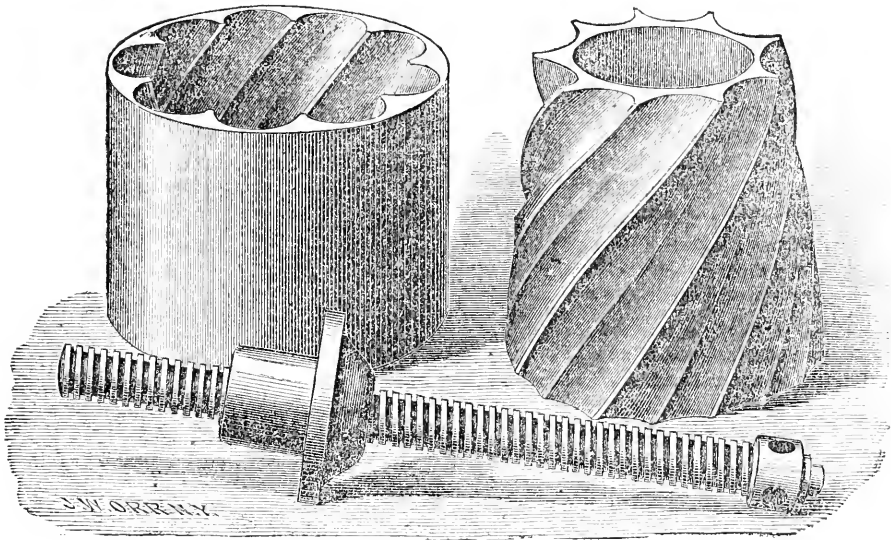
The blackbird clucks behind the plow,  
The quail pipes loud and clearly,  
Yon orchard hides behind its bough  
The home he loves so dearly;  
The grey old barn whose doors unfold  
His ample store in measure,  
More rich than heaps of hoarded gold,  
A precious, blessed treasure;  
But yonder in the porch there stands  
His wife, the lovely charmer,  
The sweetest rose on all his lands—  
The Independent Farmer.

To him the Spring comes dancingly,  
To him the Summer blushes,  
The Autumn smiles with mellow ray.  
He sleeps, old Winter hushes.  
He cares not how the world may move,  
No doubts nor fears confound him;  
His little flocks are linked in love,  
And household angels round him;  
He trusts in God and loves his wife,  
Nor griefs nor ills may harm her;  
He's Nature's nobleman in life—  
The Independent Farmer.—*Farmer's Mag.*

### SALT FOR SWINE.

While all other domestic animals are regularly supplied with salt, the hog is generally neglected. He requires, however, to be as constantly supplied as the ox, the horse or the sheep, and suffers as much from its privation as either of the above-mentioned animals do. His food is almost invariably fed to him in a fresh and unseasoned state, and to this fact we may doubtless attribute many of the violent and fatal diseases to which he is subject, and which stagger all remedies, however promptly or skillfully administered. If the food be not regularly seasoned, there should be a trough or box in every sty, in which salt may be deposited regularly for the use of the animals. Seasoning the food judiciously, however, would be much the best way.

On slaughtering swine in the fall, many persons complain that they find worms in the kidneys and some other parts of the animal. May this not be occasioned by a want of salt?



NEW IRON APPLE GRINDER.

The above cut represents the parts separate of a new apple grinder and a cider-press screw, manufactured by Messrs. Barstow & Palmer, of Norwich, Conn.

The grinder is made very strong, so that it not only grinds the apples, but if by chance a stone or other hard substance gets among them the mill is neither stopped nor injured.

Testimonials from those who have used it, say it grinds up stones and all. We apprehend that not much cider will be made in New England this fall, but if any one has any spare apples he may like to know that such a grinder exists.

*For the New England Farmer.*

#### CROPS AND PATRIOTISM IN THE WEST.

I used to wonder why so many people were anxious to leave comfortable homes in New England for new and often uncomfortable homes in the West, with few privileges, and exposed to severe sickness, deprivations and trials.

After a residence of six years in the West, and looking at the subject from both sections, my wonder now is that so many are contented to remain in New England, where money is worth so little, and land and other things so much, when many parts of the West have become well settled, with good privileges, land very cheap and highly productive, and a climate surpassing in salubrity any part of New England.

It has heretofore been believed that we could not raise fruit in this latitude and longitude, especially apples and pears; while New England

was sure of a crop every year. But this year, you have none, or next to none, and we have a fair supply for the age and size of our orchards. I planted twelve apple trees in my garden, five years ago, which now measure less than three inches in diameter, and on eight of them I have fine fruit. A dwarf pear tree in my neighbor's yard, less than two inches in diameter, has eighty sound pears on it! A single orchard in Muscatine County, next south of Cedar, has more than a thousand bushels of fruit, as I am told. It must, however, be admitted, that the winters are generally severe on our fruit trees, unless protected by forests or hedges.

We have had very warm and dry weather, this summer. Recent and powerful rains have secured our crops against drought, and been succeeded by cooler weather. All our crops will be fair, but none of them extra; wheat about three-fourths as much per acre as last year. Prices are low, and labor scarce and high. Many are gone to the war, and more can be had if wanted.

Massachusetts has wonderfully risen in the estimation of many in this region, since the 19th of April, 1861. One good result of the war will be to bring the East and West into better acquaintance, closer sympathy and faster friendship than ever before. What the end will be, God only knows. If it shall be the uprooting of that terrible evil which has brought about this fearful state of things, we may well accept the chastisement and judgment which were the condition of so desirable an event.

M. K. C.

*Tipton, Cedar Co., Iowa, Aug. 17, 1861.*

REMARKS.—We can assure our correspondent that the East regards the West and its noble

people as a portion of our nation which is rapidly rising into opulence and power, and destined not only to exert a decided influence upon this, but upon other sections of the country. It cheers us to hear of its prosperity in abundant crops, and in its scientific and literary advancement, while it inspires us with hope when we witness its loyal devotion to the great interests of our common country.

#### THE SOIL BREATHEES.

Certainly it does, just as truly as you do. A few years since, if one asserted that trees had lungs and breathed, he would have been held to an argument to prove it; just as a few years earlier nobody would have believed that a fish's gills, and the leaves of a tree, and the lungs of a beast, all performed the same office, that of aerating the blood or sap.

The soil breathes. How does it breathe? Its circulating fluid, the blood of the soil, is water; this comes to it from the air, and is already aerated. True, but this soon loses its gases by contact with the soil, just as the arterial blood fresh from the lungs, loses its oxygen when passing its circuit in all parts of the body. The blood comes back to the lungs for more oxygen, but the blood of the soil cannot do this, so we must let the air in, to come in contact with it. We cannot here explain the working of the air in the soil, but would thus briefly enforce the necessity of stirring the soil during droughts as deeply as practicable, not to interfere with the roots of growing plants, and those of previous culture, so that a deep and light soil shall invite a free circulation of air beneath the surface. Hot air, the moment it presses beneath the surface, becomes very moist, from the water which it originally contained, and it deposits it, thus not only aerating the soil, but adding to its moisture. Cold air can hold but little moisture, but hot air dissolves an immense quantity, which it deposits when it cools, or on cool surfaces. Who has not noticed of a winter's day, a locomotive leaving behind it a snowy cloud of vapor, like a comet's tail, often floating for a minute after the train has passed? Think of this, and watch the steam car on days when the hot breath, just as full of water as in winter, is puffed out into the eye of the sun, and not steam enough shows to make a shadow, it is so quickly absorbed by the air.

THRUSHES.—We have several articles now on hand in relation to these interesting birds, which, if we publish all of them, would exclude our usual variety, and be yielding perhaps too much space to a topic in which there are many who feel but little interest. We give one from our constant and intelligent correspondent, S. P. FOWLER, Esq., which we think may clear up the confusion which exists. If our Springfield correspondent, "J. A. A.," finds it does, we will omit his article. If he does not, his article will be given soon. It is pleasant to find so many persons interested to set the matter right.

For the New England Farmer.

#### AN ATTEMPT TO CLEAR UP THE CONFUSION EXISTING ABOUT THRUSHES.

BY S. P. FOWLER.

In the family of thrushes there has been much confusion in the minds of many who are fond of the study of ornithology, arising from the fact that Wilson, Audubon, and perhaps Nuttall, seem to have had an imperfect knowledge of our thrushes, and omitted to notice one of our most common species, (*Turdus Olivaceus*.) This confusion is also increased by Wilson's giving us a figure of one species of thrush to accompany a description of another species. This entanglement in our ornithology has since been increased by Swainson, and others. The confusion principally exists in the three following species, viz: The Hermit Thrush, Wilson's Thrush and Olive-backed Thrush. The last named bird, so far as I have been able to ascertain, was noticed by Mr. J. P. Giraud, Jun., who published a description of it, and gave it its present name in his work entitled "Birds of Long Island," in 1844. But the discovery is said to have been made in 1843. Dr. Brewer, of Boston, a distinguished ornithologist, however, made the same discovery, and gave it the same name, about the same time, without having known the fact that it had been noticed by Mr. Giraud. The author of the "Birds of Long Island," page 91, informs us that, "On referring to the Minutes of the Lyceum of Natural History of New York, he found in the month of December, 1839, a communication made by the late H. C. De Rham, in reference to a confusion existing among the North American *Turdinæ*, [Thrushes.] Mr. De Rham, in his communication, stated that he had detected a confusion in the arrangement of this branch of our ornithology, but not having had an opportunity fully to investigate the subject, he was not at that moment prepared to unravel it, but he hoped to be able to do so at a future period. Shortly after this statement, and while practically in pursuit of this department of Natural History, [Ornithology,] he fell a victim to disease. By that sad event the Society was deprived of a highly valuable member, and the science of Ornithology of one of its most zealous and liberal supporters."

Mr. Giraud, in continuing his remarks, says: "In pursuing the same subject, we find the confusion relative to the synonyms applied to thrushes by various authors still exists. After a careful investigation, made by comparisons with specimens in my possession, as well as those in the extensive collection of Messrs. Lawrence and Bell, it is found that the above thrush was first described in the *Fauna Boreali*, or Northern Zoology, by Swainson and Richardson, under the name of *Merula Wilsonii*, mistaking it, as we suppose, for the *T. Wilsonii*, of Bonaparte, and describing the true *T. Wilsonii* under the name of *M. Minor*, which applies to the Hermit Thrush, *T. Minor*, of Gmelin. As the matter now stands, we feel at liberty to separate it from other species, by applying the name of [*T. Olivaceus*,] Olive-backed Thrush.

Dr. Brewer has effectually cleared up the confusion existing in the small thrushes, in his communication in the Proceedings of the Boston Society of Natural History, vol. 1, page 190, where



he called the attention of the Society, at their meeting July 17th. 1844, to some facts tending to clear up the confusion and errors in the history of the Hermit Thrush, (*Turdus Solitarius*, Wilson.) He said there are three distinct species which, by different authors, have been strangely mixed up. Wilson described one as *Turdus Mustelinus*, Tawny Thrush. This is common, and is known as *T. Wilsonii*. The second is described by Wilson under the name of *T. Solitarius*, Hermit Thrush; but under the same name he has also given a figure of a third species, every way distinct. This last is not described in either of the works of Audubon. Swainson recognizes three species, but has confounded them in a remarkable manner. The first, he describes as a new species, *merula minor*; the second, he describes as *merula solitaria*, but accompanies it with a plate of the third species, while he confounds the third with *T. Wilsonii*. In De la Sagra's work on Cuba, all three species are thrown together, and called *merula minor*. In Audubon, correct descriptions are given of two species, but the habits, locality, &c., of the third, are given as those of *M. Solitaria*. The specific marks of the three species are briefly summed up by Dr. Brewer as follows:

*Merula Wilsonii*, (Wilson's Thrush.)—Uniform foxy color; breast clouded rather than spotted; common in New England, and to the North; not found in Pennsylvania, except in its migrations; nests in bushes; eggs blue, unspotted.

*Merula Solitaria*, (Hermit Thrush.)—Rufous brown, back tinged with olive; cinnamon spot on the under part of wing; breast deeply spotted on a white ground; tail slightly forked. Passes north early in April; a northern species, rarely breeding so far to the south as Massachusetts; nests on the ground; eggs bright green, unspotted.

*Merula Olivacea*, Brewer, (Olive-backed Thrush.)—Back uniformly olive brown; no tinge of rufus; tail uniform with the back; ground color of breast salmon, strongly spotted; tail even; nests on trees; eggs spotted with brown, on a blue ground; most abundant in the State of Pennsylvania, and to the South.

I have supposed, with Mr. C. S. Paine, an accurate observer of our birds, that there is still one more species of our small woodland thrushes yet undescribed. Any one desirous of pursuing the entanglement in the family of our thrushes, can consult Mr. Baird's report on our birds in the 9th volume of the Pacific Railroad Surveys, page 208.

Danversport, Aug. 20, 1861.

For the New England Farmer.

#### ONION AND OTHER CROPS.

To-day, in company with an intelligent friend from the hills of the Granite State, I visited the finely cultivated lands on the Marblehead shore. There we saw crops of cabbages, carrots, onions, &c., as fine and as abundant as the most avaricious would desire. Aye, even onions. I was assured that Mr. Alley has a field of onions that will yield 600 bushels to the acre—notwithstanding the ravages of the maggot. I saw on the farm of Mr. Ware, several acres which I should have estimated 500 bushels to the acre, had not his

modesty forbid the estimate. On the same gentleman's land were several acres of carrots, which he admitted would yield thirty tons to the acre. Suppose them to be worth \$10 per ton, this would give a produce of \$300 per acre,—pretty well, this, for *war time*. My friend was quite astounded to see such crops; and when he inquired for the manure heap they used, was shown the beach at the foot of the field, where waves have rolled for years unnumbered. Mr. W. said his men and teams were then engaged in collecting material on a distant beach; all they had to do was to gather it in piles, and then it would soon be in condition to be put upon the land; with what effect, you will judge from the products before mentioned.

J. W. P.

South Danvers, Aug. 20, 1861.

For the New England Farmer.

#### HOW TO BUILD CISTERNS.

DEAR SIR:—I see that you published my directions for building cisterns in last week's *Farmer*, but I regret exceedingly that you did not read proof better. It is very natural for us to have an exalted opinion of our own children, and when I had written those directions, I thought a man could take them, and with a shovel and trowel, a few hundred brick and three barrels of cement, build the cheapest and best cistern in the world. But as printed, I don't know what sort of a thing a man would build if he followed the directions. In the twentieth line from the top it should be "*Shave the top sloping inwards,*" and not *shore*, as printed, and from the trap door to the waste pipe, it is all wrong, and I will re-write it. *Smooth the bottom with a sink in the middle, for dirt to settle in, and lay a flat stone where the pump pipe goes, and plaster with a good thick coat of cement. Put in the conductors, cement around them, and go over the whole inside with a wash of cement, about the consistency of thick whitewash, and it is done, probably for all time.* These corrections would probably be best understood if you were to reprint the directions, leaving off the preamble before "*Draw a circle ten feet,*" &c. You can do as you think best. My only object is to enlighten the public upon a very important matter.

A. G. DEWEY.

Quechee, Vt., Aug. 26, 1861.

REMARKS.—We read the first article of our correspondent, on building cisterns, with pleasure, because the subject is an important one, and with our usual care. We are somewhat accustomed to reading manuscripts, and can read anything that looks like writing at arm's length. We have, also, an experienced and careful proof-reader, and the *Farmer* is usually quite free from typographical errors. May not those which are detected be fairly attributed to some other cause? We certainly had to puzzle our head somewhat to make out our correspondent's first article. While we mean to exercise great care ourselves, we beg our correspondents, for the sake of their own credit and comfort, to be equally careful to send us legible manuscripts.

*For the New England Farmer.*

### SAVE YOUR SEED CORN.

There have lately been several seasons in which corn matured very imperfectly, especially in 1859 and 1860. Much of the corn planted in 1860 and 1861 came up slowly, exhibited a sickly appearance, and in some fields there was only a small portion that came up at all. This difficulty may in a great measure be remedied by selecting and saving seed corn from the field.

When living in the West a few years since, I did as most farmers in New England do: top the stalks, and at planting time go to the crib and pick out my seed corn. When my first crop was on the ground, I sent a man in the month of September to top the stalks, and on his return, he said to some person that had not seen the corn, that it made his arms ache to reach up so high, to cut the stalks above the ears, and was laughed at for saying so. The next time he went to the field, he cut to the ground and brought home two stalks with ears and tops; one with one ear, the other with two. I measured them, and found one was fourteen feet, the other fourteen feet six inches, in length. I tied them up to the ceiling, where they remained till the next planting time.

When my ground was being planted, I directed my man to plant these ears, and mark the rows where he put them. When the corn was coming up, I noticed two rows came up earlier and more vigorously than those on either side, and in a week after, the corn in these two rows was a third larger, and was of a dark green color, while the other had more or less a sickly appearance. I could not account for the difference.

I afterwards asked my man where he planted those ears. He said, "So many rows from the west end," and in counting, I found those two rows the ones alluded to. This corn kept the lead, made a larger crop, and matured before that on either side.

Let me advise the readers of the *Farmer* to go into their corn field early, and select the best ears and those that ripen first. Save the whole, ear, but and top, and place on poles, in a dry, airy situation. I do not advise topping the stalks of any part of the crop. The corn and fodder are both better for being cut and put into shocks. The top, if retained, will better mature the grain.

But many good farmers think it not expedient to save the crop in this way, and will continue the old practice of topping the stalks. If they will adopt the plan I have suggested in saving their seed corn, they will find it but little trouble, and the advantage gained will often save much labor in replanting; it will make a better crop, and mature earlier.

J. R. H.

### COLIC IN HORSES.

This disease, says the *Valley Farmer*, is a very common one, and if taken in time may be easily cured in most cases. It is not unfrequently confounded with inflammation of the bowels, but is easily distinguished as follows: Colic has no increase of the pulse, which is not over fifty a minute; the animal often rolls; the disease intermits, and there is but little fever. With inflammation of the bowels there is much fever; the pulse is sometimes a hundred a minute; the attack is gradual; the disease does not intermit.

When colic arises from bad food, a pint or so of a solution of saleratus will often afford entire relief. As it assumes more of a spasmodic character, peppermint and ginger may be added. We have used, with entire and immediate success, a small spoonful of saleratus, the same quantity of ginger, and a teaspoonful of peppermint, added to a pint of nearly boiling hot water, and given from a junk bottle. Powdered charcoal is one of the best and safest medicines for any disease resulting from derangement of digestion, and two or three ounces or more, mixed with water, may be given at any time with great advantage.

Inflammation of the bowels is generally increased by irritating medicines. A drink of slippery elm, hourly, giving the horse but little food, and letting him stand, is safe treatment.—*Montgomery Ledger*.

*For the New England Farmer.*

### WOODLAND SCENES---No. 1.

"There is a pleasure in the pathless woods."—BYRON.

Few persons, even among those who live in close proximity to large tracts of woodland, are aware of the pleasure and profit which can be derived from an occasional ramble amid the solitudes and wild beauties of nature. To fully enjoy a walk in the woods, one must throw all care and anxiety to the winds, and give his whole attention to the surrounding scenes.

A short time since, in company with a friend from the city, I took a walk in a large tract of woodland, which extends over an area of many hundreds of acres. It was in the afternoon of a cloudy day in "hay-time;" one of those cool, delicious days, which are so refreshing to the tired laborer after several days, or weeks of hot, dry weather. Taking our guns and dog with us, not with the expectation of finding game, but as a safeguard against any sudden attack by Southern rebels, or other desperadoes, whether in human or inhuman shape, we followed for awhile an ancient cart path, which, since my remembrance, led through a venerable growth of pine and oak. Alas! the destructive hand of man has here been busy, and the ancient forest has disappeared; but a young and thrifty growth of oak and hickory is fast springing up to hide the ruins of former ages. Our path soon led us near the brink of a deep glen or ravine, which was once called "The Dark Valley." The original forest which surrounded it and extended down its steep sides, was so tall and dense, that at mid-day no ray of the sun could penetrate its twilight darkness. But its former glory—the majestic trees of the wild wood—has departed and been made subservient to the wants of civilization: many generations will pass away ere its deep shadows will again return.

We came in a short time to a larger growth of wood, not the original one, but what is called the "second growth." The trees in this place were of quite a respectable size, but they were mere pigmies compared with the stately monarchs of the woods beneath which the wild Indians built their wigwams, and hunted the bear and deer. The path here came to a termination, or was so grown up that we could not trace it, and we proceeded on through the trackless forest, pausing occasionally to rest upon the moss-grown rocks, or to gather the sweet-scented wild flowers which grew

in profusion around us. As we walked along, a startled rabbit would frequently give a few thumps with his feet upon the ground and bound away; a partridge would suddenly fly up almost from under our feet, and with a whirring sound quickly disappear through the thick foliage.

The ground now began gradually to descend, and pushing our way through underbrush and tangled wild vines, we came all at once, with scarcely a previous glimpse, to the shore of a beautiful woodland lake. This lake, which is called "Long Pond," is of considerable extent, and is entirely surrounded by an amphitheatre of hills which are covered by an unbroken forest, and there is no human habitation within the distance of nearly a mile.

Seating ourselves upon one of the shelving rocks which skirt its eastern shore, we could not but go back in imagination to the time when the red man in his birch canoe skimmed lightly o'er its sparkling waters, in utter ignorance of the coming white man, and of the fate which awaited him and all his race, in consequence of the white man's appearance.

The solitude, which we had sought and found, was perfect; not a sound could be heard, but the sharp, rapid notes of the kingfisher, as he occasionally flew over the water in search of prey, and the clear, sweet melody of the wood-thrushes, which were warbling forth their hymns of praise in the tall oaks upon the opposite shore. The scene before us was calm and beautiful—inclining one to deep thought and reflection upon the past, present and future. There is no place on earth, it seems to me, more favorable to the cultivation of devotional and happy feelings, than one like this; for here we are entirely separated from the busy, anxious, jostling world, and can hold communion with the Maker of all things, in His own living temple. The poet Grahame has given a beautiful expression to these same thoughts:

"It is not only in the sacred fane  
That homage should be paid to the Most High;  
There is a temple, one not made with hands—  
The vaulted firmament; far in the woods,  
Almost beyond the sound of city chime,  
At intervals heard through the breezeless air;  
When not the limberest leaf is seen to move,  
Save where the linnet lights upon the spray;  
When not a floweret bends its little stalk,  
Save where the bee alights upon the bloom;—  
There, rapt in gratitude, in joy, and love,  
The man of God will pass the Sabbath noon;  
Silence, his praise; his disembodied thoughts,  
Loosed from the load of words, will high ascend  
Beyond the empyrean."

How harsh and discordant would be the sound of angry words, or the noise of human strife in this quiet solitude! It would be like drawing the brush across a beautiful painting, just finished; like driving a nail into a splendid mirror; or like the scathing, withering, terrible effect of the thunderbolt upon whomsoever or whatsoever it may fall. And yet, in our own beloved country—not far from its capital—in valleys as secluded and charming as the one I am describing, men, and *brothers*, are, at the present time, engaged in deadly warfare! These quiet vales are made to resound with volleys of musketry, with the sound of booming cannon, with the groans and shrieks of the wounded and dying; the leaves of the forest are sprinkled with blood, and the earth is drenched with human gore. This may

all be right and necessary in the present state of human affairs, but it is horrible to think of—especially when one is amid the calm, and almost sacred solitudes of nature.

This valley in which I am musing, is now quiet and peaceful, but who can say that it will not, at some future time, become the battle-ground of contending armies, and the pure waters of this placid lake be turned to crimson with the blood of thousands? God grant that the day may be far distant, if it ever comes.

We had been seated thus but a short time, before we espied at the northern shore of the pond, at the distance of about one-fourth of a mile, a thin wreath of smoke curling slowly upwards through the tops of the trees; we also discovered a boat, which was partially hidden by the drooping birches, upon the shore, and listening intently, heard the sound of voices and laughter. Who could it be? Had the Indians returned to their ancient hunting-grounds, and was this the smoke of their camp fire? Was it a roving band of gypsies, or a squad of Southern "fire-eaters", from the land of bondage, ignorance and abominable crimes? Presently, two men and a woman came down to the shore, stepped into the boat, launched out upon the water, and came directly towards us. We awaited their coming, not with breathless anxiety, but with considerable curiosity. They came about half the distance which intervened between us and themselves, paused, dropped anchor, and—quietly began to fish. To gratify a desire to hear the echoes of the woods, I fired my rifle into the air; the effect was surprising. For a moment, the sound of guns could be heard in every direction, and it was easy to imagine that the woods were full of armed men. The people in the boat seemed much startled, and looked this way and that, hardly knowing from whence the sound proceeded. They had probably thought themselves to be as safe from intrusion as we had imagined ourselves to be, but a few moments before.

My companion had a great desire to know more of this fishing-party, for such it was; and to gratify this curiosity, we concluded to go around to the place from whence the smoke proceeded. To do this, we were obliged to travel a mile or more, without the least path, and through a thick undergrowth of bushes, briars and wild vines; over rocks, ledges, hills and vales; but even here, we found many things full of interest. The wild rose grew luxuriantly on every side; we saw many of the beautiful, red field lilies, and the white azalia, [was it the clematis? the azalias have gone by.—Ed.] or something which very much resembles it, filled the air with its rich fragrance. On the side of a hill, near the pond, we came to a large rock or boulder, which equals in size a small house. We climbed to the top, and had a fine view of the lake and its surroundings. Even on the top of this barren rock a small tree once flourished, for we found a part of the trunk and some of the roots, the fibres of which were yet clinging to the scanty allowance of soil. The sides of the rock were nearly covered with many varieties of the beautiful mosses and lichens, a description of which has been so exquisitely given by Ruskin. This huge fragment of rock, weighing probably several thousand tons, was traversed in every direction by veins of rock of a different

composition from the main portion; and there was an occasional piece of rock of a lighter or darker color than the ground work, which looked as if it might have been thrown into the general mass when it was in a soft or melted state. As I examined the rock, it seemed like a key, which, if rightly used, would open to mankind a vast storehouse of invaluable knowledge; for, if its history could be perfectly known, the history of the earth's formation, and many of its mysteries, would be made plain and easy of comprehension. In the present state of our knowledge concerning these boulders, we can only arrive at conclusions respecting their origin and history, which at least seem reasonable, if not perfectly conclusive.

In another article I shall briefly allude to some of the present theories which are maintained by scientific men, with regard to the origin and transportation of these rocks to their present localities.

S. L. WHITE.

*South Groton, August, 1861.*

#### PREPARATION OF FOOD FOR SWINE.

It is the opinion of practical men, that in order to produce its greatest possible effect, the food given to swine should be slightly fermented. We will give their reasoning, though we frankly say that we have never been able to receive their theory to its full extent. As a corroboration of their opinion, they say that in Germany, and several other countries of Europe, draft horses are fed on bread which has been slightly acidified, and that this method of keeping them has been found more economical than feeding them on grain. It is a well known fact, they say, that wheat bread which has been brought very near to the condition of actual acidity—such as is commonly found on the tables of the German population, is much more healthy than unleavened bread, or that which is "raised" by the agency of alkalescent mixtures, such as saleratus, pearlash, &c. A slight fermentation, therefore, it appears reasonable to suppose, would prove advantageous to all substances of a farinaceous nature, and have a tendency not only to increase their actual alimentary powers, but to render them more salutary so far as health is concerned.

Where this plan of preparing food for swine is adopted, it will be necessary to provide a couple of tubs of suitable size, and to feed alternately from each. If both are filled at the same time, the first one fed out will be sweet, or in its natural state, but the second will, by the time the contents of the first one are expended, have undergone an incipient fermentation, and acquired all the additional qualities which are to be derived from the process. The exhausted tub must then be replenished, and the alternating course regularly pursued.

In very cold weather the economy of fermentation will necessarily be wholly arrested, and recourse must be had to artificial means in order

to keep it up. Old pieces of stale bread, which ordinarily find their way into the swill tub, will, unless the temperature approximates the freezing point, generally put the whole mass into a state of vigorous fermentation in a few hours. It is not impossible that the addition of a small quantity of baker's or brewer's yeast—which is a cheap article—might be economically used for this purpose. It would not be necessary to add fresh yeast to every tub full of food, unless the tub were exhausted completely of its contents—a contingency which it will be found very easy to obviate, whether the feeding be conducted on a large or limited scale. The acidulation of the contents will fit them for "rising" all additions which may be made, so that a single pint of yeast to each tub, at commencing, is all that is strictly necessary. Indian corn which has been steamed or boiled is very susceptible of the influences of yeast. In starch manufactories they make a liberal use of yeast, in order to facilitate the extraction of starch, and it is not unreasonable to suppose that the stomachs of animals would have their labor somewhat lessened by the assistance of the same process.

The stages of fermentation are the saccharine, vinous, acetous, and putrefactive. The first is exhibited in the malting of barley for the brewery, which is rendered sweet by the process; the second is seen in the "working" of cider, beer, &c.; the third in the acidification of bread and the fermentation of vinegar; and the fourth in the decomposition of bodies generally.

In preparing food for swine, by fermentation, it is generally believed by these persons, that the process should be arrested at the third stage, as, should it pass the third, and enter the fourth, it would prove very prejudicial to the health of the animals, and might—should the feeding be continued for some weeks—be productive of harmful, if not fatal results. It is well known that the hog is remarkably fond of sour or sweet food; that he will like and fatten rapidly on cooked sour apples, or on mush made sweet with molasses. In the autumn the fermenting food may be fed with green matters, such as apples, pumpkins, potatoes, &c.; or these may be added to the fermenting mass, and be made to undergo the process conjointly with it.

Such is the common theory among practical men, and it is certainly entitled to consideration.

After all, however, the secret of making hogs profitable is to get good breeds, furnish them with places where they can be comfortable as regards temperature and moisture, and then feed them *regularly*, on as much nutritious food as *they will eat with a sharp appetite*. This food should be of various kinds—such as meal, roots of some kinds, a little meat, in the form of beef or pork

scraps, or what comes from the table, and from the *first of April to the first of October*, as much *short, tender grass or weeds as they will eat*. If they are starved in order to make them root over the manure heap, you must give them credit for that labor when they are slaughtered, as their carcasses, in the pork-barrel, will be of little credit to you or them!

No one thing that the farmer produces is of more substantial benefit in sustaining the family table, than his swine. All parts of the animal work in admirably in one form or another, and a considerable proportion may be kept in perfection through the entire year,—always at hand, sweet, rich, and wholesome, to season the pot of baked beans, the various vegetables gathered from the garden, or to aid in cooking other meats brought upon the table.

*For the New England Farmer.*

#### WHEAT HARVEST--WHEAT TADPOLE-- MAPLE WORM.

MR. EDITOR:—I have been harvesting wheat to-day, up here amongst the Green Mountains, and thought I would tell you a little of my experience. I have assisted in harvesting wheat in several States, and find if I have dry, warm land to grow it on, and plenty of the right kind of manure, I am pretty sure of a crop. I think there are few places where a top dressing of lime or ashes, would not be beneficial.

The louse, or wheat tadpole, made its appearance here rather late in the season, when the wheat and other grains had become too ripe to be damaged much. I saw some of them in the shade of trees. He is a queer little fellow, appearing first in form of a slug, brown or green, grows into a louse, then changes to a fly to be eaten up by the great-winged tadpole hawk, or to lay its eggs and die. Should it appear earlier next year, it will destroy man's principal food, the small grains, unless he destroys it. I see them all over New England, and hear of them in some new place every day. They seemed to attack all kinds of small grains about the first of August that were green, and left as fast as it ripened. Where they appear before the grain fills, it never is filled; and if partly filled, remains so and dries up soon. I find lime sown on the grain when the heads are wet clears out the tadpole, as well as weevils and various other bugs.

There is one kind of bug of a pale red with black spots that seems to multiply very fast. I fear she is a rogue. I found her busying herself with the apples when first setting. She seems to deposit an egg in the blossom, and I think is the mother of the ugly worm that we find in the apple. She is as near a mud-turtle as a bug can be in form and action, when not on the wing. They have eaten the kernel of wheat and oats this season to a considerable extent in this vicinity, and I would like to hear from others about them.

I am anxious to know if any one has discovered the thing that eats up our sugar maple foliage, to build its nest. They are increasing very fast, and if they continue as they have done for years

past, will destroy all the sugar maple trees before I am acquainted with them. I have devoted all the time I could spare when they were in the neighborhood and have not caught anything doing the mischief yet. I will send you a leaf which will show you how they feed on thousands of trees. I find a green worm—something like the worm on hop vines—on many trees, but never can see them eating or moving, only to drop off when disturbed.

I have heard of grasshoppers, but never have seen the real migratory sort till to-day. They are very thick here, and come in the night or early morning. They go to roost like turkeys, and gnaw the buildings and rails till sunrise. As near as I can estimate, there is one, an inch long, to every square inch of ground. Can any of your mathematicians tell me how long it will take them to destroy the second crop from fifteen acres, where we cut 1½ tons of hay per acre?

Have the bat flies that formerly annoyed our horses so much left us to make room for some other plague? I have not seen one in New England this season.

I know a remedy, sure and safe, for the destruction of worms and bots in horses, that any one can know by the asking through your valuable paper.

Wake up, young farmers, and let us have a little chat now that we have done haying. K.

*Sunderland, Vt., Aug. 23, 1861.*

REMARKS.—Some time ago, we were lying under the spreading branches of a splendid rock maple in Windham county, Vermont, having a pleasant agricultural chat with a friend. It was a calm, early autumnal day. The sun was bright, and the dense mass of leaves overhead scarcely showed a motion, so quiet were the elements. Presently it seemed to rain, though not a cloud could be seen. Still, the rain fell, in gentle patter, patter, on the leaves above and on our hats! We emerged from the tree and looked into the zenith, but there was no cloud there. This led to a closer examination, which disclosed the fact that this noble rock maple, standing alone on the hill, giving grace and beauty to everything about it, was covered with worms! And what seemed at first to be the pure rain coming down so gently from the skies, was the offal of a little green worm, whose habitation was among the green foliage of that graceful and majestic tree! We think it time that attention should be turned to this matter, before our beautiful and profitable sugar orchards are ruined.

NITROGEN.—The air is about four-fifths nitrogen. It is best obtained by burning a piece of phosphorus in a closed jar. The oxygen unites with the phosphorus, and leaves the nitrogen. A candle plunged in it, goes out at once. All plants contain it; and so do the working tissues of all animals, such as the muscles and nerves. Our food must contain it, else we could not make muscular and nervous tissue.

*For the New England Farmer.*

### ACTION OF WATER ON PLANTS.

In the vegetable economy, water is so common a thing, that we are apt to give it less importance than it deserves; yet on reflection, we know it is indispensable to plants, as all their inorganic nutriment (the various salts of the soil) must be dissolved in it, and drawn up with it—plants being *moving* organizations, not masticating. A drought of five or six weeks in the summer season, shows the bad effects of its absence—a shower its good effects. Rain water is more impregnated with air and gases than spring, and hence its remarkable effect upon vegetation. The poet Thompson aptly designates a shower as “falling verdure.” The sap or common juice of plants consists chiefly of water, and its privation is less tolerable than that of more solid nutriment—the same as man can bear hunger longer than thirst.

All water comes originally from the ocean, from which it evaporates, leaving the salt behind. It rises to a colder region, condenses, coalesces, and falls in rain. So falling, it cleanses the leaves of plants, enters the pores of the foliage and tender bark, and dissolves the salts of the soil. The electric spark of the thunder storm frees, to an extent, the nitrogen from the atmosphere, and sends it down with the rain to invigorate vegetation. The value of a heavy shower upon crops long suffering for rain, might, perhaps, be safely estimated at five dollars the acre.

Water in the form of dew is another important means for the sustenance of plants. After sunset, the earth radiates its heat more rapidly than the atmosphere, and consequently the stratum of air immediately in contact with it undergoes a condensation of its vapor, and deposits it on the leaves and grass in the form of dew. The power of rapid radiation of heat which plants possess, and the consequent power of collecting the moisture of the atmosphere, is one of the most important provisions of nature for their preservation during the warm season.

Water has the power of absorbing its own bulk of carbonic acid gas, as also portions of the oxygen and nitrogen of the atmosphere; and these gases it takes with it into the plant, whether it discovers them in the soil or externally. In fact, water itself (or its two elements, oxygen and hydrogen) is thought to furnish important nutriment to plants, aside from its powers as a vehicle for other kinds. This is effected by the power of the plant to decompose it, and to incorporate into its organization either principle.

Artificial irrigation is often resorted to for gardens, and always, necessarily, for green-houses. For this purpose, rain water which has been standing some time, is excellent, and the more frequently it has been stirred up the better, thus giving more carbonic acid gas and atmosphere to the plant. The water of rivers, and that of stagnant ponds is good; particularly the latter, as the green scum frequently found upon its surface, affords food for the numerous swarms of the insect tribe—flies, worms, snails, &c. As this ephemeral population perishes, it gives an offensive effluvia to the water, but the richer it is in food for vegetation. Spring, or well water, is perhaps the least appropriate for irrigation; but if it is obliged to be used, it is well to expose it to the atmosphere

to remedy the deficiency of its air and proper temperature.

For irrigation to be successful, the soil, of course, should be porous, otherwise the water runs to some hollow spot, or is evaporated. The soil in a well attended flower pot seems to be in the best condition for plants, for here the water readily sinks, and all not required passes out at the perforation at the bottom. Here, too, we see the harmony of the paradoxical idea that irrigation and underdraining assist each other.

Striking holes with a bar is a good method for facilitating the descent of water around trees and shrubbery, in the hot season, when the earth is dry and hard. And these plants, when well established, will bear at their roots, pretty strong sink water, barnyard drainage, or any other liquid manure. In fact, they generally get too little of it.

D. W. L.

*W. Medford, Aug., 1861.*

### CHEAP FOOD---A NEW DISH.

A writer in one of the Eastern papers says that probably not one farmer in fifty knows what excellent, hearty, wholesome food he can have directly from the wheat field, stack or barn. He says: “The writer’s family breakfasted this morning, July 20th, mainly on boiled wheat. Boiled wheat and wheat gravy. Boiled wheat and milk. Boiled wheat and maple sugar. Not wheat flour, nor wheaten groats, nor cracked wheat, but whole grains of wheat, shelled from the best heads, as the larger the better, and soaked in cold water two or three hours, and then boiled in the same water one or two hours, or until it is quite soft, and the water all absorbed. It should be cooked while other culinary operations are going on, as it needs to boil or simmer on a slow fire a good while, and care must be taken at the last that it does not burn. To prevent this it may be finished off in a sand bath, that is a pan of heated sand, or in a pan of water, or in a tin kettle set upon a thick earthen plate on a stove; or in a stove oven with all the heat over the top. How easy for our soldiers to have a change in the eternal bread and salt meat rations, if they may be allowed to glean a few wheat heads from the ‘sacred soil’ of the enemy, and boil the grains in their camp kettle. How convenient would this little item of knowledge in domestic cooking be to the wife of many a farmer, who would gladly get up an extra dish for the tired harvest hands. Try it. How many families are this day living on short allowance, right alongside of a wheat field, or with grain in stack or barn near the house, because they cannot get it ground, the mill being dried up, or broken down, or occupied by ‘the army,’ or suffering collapse, so that no grinding can be had.”

EMPLOYMENT OF CAMELS IN CALIFORNIA.—Julius Bandman, who owns ten Bactrian camels, which Mr. Frisius imported from Siberia, is convinced, after months of experience and observation, that these camels are valuable for packing over mountains and plains. He trots them over the San Francisco sand-hills daily, to eat thistles and exercise their muscles under bags of sand, each camel being able to carry easily 650 pounds.

and Fort Yuma officers say they can make thirty miles a day under 1000 pounds. The big humped brutes are models of temperance, rising at four o'clock, retiring at sunset, drinking water only, and that but once in ten days, when two buckets will suffice each animal. They are very healthy, ugly, and tractable; and the *Alla*, from which paper we condense these facts, intimates that packers ought to experiment with them in the Sierra Nevada.

#### SHELTER FOR A FRUIT GARDEN.

A subscriber (J. P., of Oswego,) wishes to plant a fruit-garden, where it needs shelter on the north and west sides; and asks advice about the material for a hedge or screen, and the manner of planting it.

REPLY.—If your garden were not to be so large as you propose, we should say, use buck-thorn for the hedge, allowing it to grow eight or ten feet high. This plant can be had cheap, it grows in almost any soil and exposure, and is not subject to the attacks of the borer. But, as you wish "shelter for standard pears and peaches one hundred and thirty feet off," probably you had better try something else. If large specimens of the American Arbor Vitæ—say five or six feet high—can be had from the woods near you, we should say, make a trial of them. They will transplant easily, and when established, will grow a foot every year. They can be sheared and kept within a small space as any hedge. The roots will not extend a long distance, to rob fruit trees of their needful food.

If the Arbor Vitæ cannot be easily obtained, then try the Norway Spruce. This may be a little more expensive at the outset, but it will surely succeed, and be every way satisfactory. Get plants about four feet high, set the stems at least six feet apart in the row, and they will soon spread laterally so as to fill up the spaces between, and they will rise high enough to break the winds from your most distant fruit trees. All this, however, goes on the supposition that you first prepare a wide, deep and rich border for them to grow in. After they have become well rooted and in vigorous growth, they should be pruned a little in midsummer. This tree is much used in Norway for hedges and screens, and when well managed, makes a lofty green wall, and a barrier stout enough to turn cattle. You could, undoubtedly, set fruit trees within ten or twelve feet of this hedge, without material injury from its roots.—*American Agriculturist*.

#### MIASM.

On the wings of the viewless winds in September, the sickliest month of the year, there is wafted an agency of disease and death, so ethereal in its nature, so intangible to mortal sense, so insinuating, so all-pervading, that no alembic can detect its presence, no prison-bar or palace-gate can prevent its entrance. It is called "MIASM;" it is an emanation from the surface of the earth wherever there is vegetation, moisture, and heat equal to eighty degrees, and is the fruitful cause of many diseases which ravage whole communities at a time, such as agues, fevers, diarrhœa, dysentery, cholera, pestilence, and plague. But its

laws are known, by the educated physician, and its destructive agencies can be averted by avoiding exposure and fatigue in the out-door air for the hours including sunrise and sunset, at which time a hot breakfast and supper should be eaten, by a good fire, in all prairie, flat, water-course, and lake and sea-shore situations. If the common people could only be induced to take these simple, easy, practicable, and comprehensible precautions, these diseases would be prevented as epidemics, or arrested in their progress, as certainly as that care can prevent the firing of a town, and that water will put it out. These are the teachings of science, and experiment has demonstrated their truth beyond a cavil. Yet who will take these precautions?—*Hall's Journal of Health*.

#### HOW BANK NOTES ARE MADE.

The New York *Evening Post* informs us that the American Bank Note company, located in that city, is the most extensive establishment of the kind in the world. It employs some of the best artists in the country in sketching designs. In some cases the artists send original sketches, but generally embody the ideas suggested to them. Darley's designs are frequent in our bank note circulation, and are at once recognized by those who are familiar with his style. The vignettes are combined with portraits of individuals, and the letters and lathe work which make up a bank note. The drawings are sent from the design-room to the pictorial engraving department. The best artists are employed in this department, and there are fifteen men, each at his own desk, who work eight hours per day, and earn from \$2,000 to \$4,000 per year. Some of them work exclusively upon "heads;" others upon human figures. In some cases a vignette which comprises landscape, sky, architecture and figures will pass through as many different hands, and the separate parts of the work, finished by artists who have made that style a speciality, make the whole as perfect as possible; indeed, a first-class vignette, unless a portrait, is hardly ever by one hand, and a portion of it is "bit in" with acids, and afterwards finished with a graver. The portrait-engravers become so skillful, that they produce a perfect likeness from a photograph, painting, or engraving, and whatever work is in hand is given to the artist who is best qualified to make a finished picture of the kind required. All of the vignettes, and much of the larger letter work, are engraved on separate pieces of steel, from which proofs only are printed. These pieces are taken to the hardening-room, where two men, who are experienced in handling steel, harden them, by heating and plunging them into water or oil.

The hardened plates are placed under presses of enormous power, and are "taken up" upon decarbonized dies of a cylindrical form, which are afterward hardened, and are used to transfer the impression to the plate from which the notes are printed. Thus the work is doubly transferred before it is printed. The shading of the letters is done by machinery, and in this way also is executed that curious, complicated and beautiful ground work for the figures, and from which the tints on the face and back of a note are printed. Such is the accuracy and uniformity of the geo-

metrical lathe work and cycloidal ruling, that it is impossible to imitate them by hand. The production of these lace-like figures is the result of a mathematical problem worked out beforehand; so many turns of certain wheels will produce a certain figure, which can be multiplied by the transferring process indefinitely. The machines are very complicated and expensive, (though to one unacquainted with them, they seem cheap and simple,) and require great skill and experience in their management and operation. We were shown in this department a geometrical lathe, not twice as large as an ordinary sewing-machine, and less than half as noisy, which was three years in building, and cost about \$10,000. These machines are never patented, as the secret of their construction is worth more than a patent, and improvements and alterations are made from time to time, while their great cost prohibits their coming into general or improper use.

#### CORKS FOR CLOSING PRESERVE JARS.

For the preservation of all kinds of fruit, use glass bottles or jars. They are cleaner, more durable, more costly at first, but cheaper in the end, than tin, and transparent. Select those of even thickness, or rather of even *thinness*, for they are often exposed to considerable heat, and while they should not be so thin as to break in common handling, or burst from internal pressure caused by fermentation, still they should not be thick, or of pressed glass, when blown glass jars can be readily obtained. So much for the bottles. Now as to closing them air-tight. First, corks will not do it. The very structure of the substance is against it, unless cork of the most velvety character is obtained, and this is costly. We have in previous volumes recommended waxed cloth tied over the jar as a substitute at once cheap and effective, and have never found anything superior to it. Prepare the cloth in this way:—Melt together some rosin, beeswax, and tallow in equal parts; tear the cloth in strips four inches wide, or at least wide enough conveniently to tie over the mouth of the jar, and dip these strips, drawing them through the hot wax and stripping nearly all the wax off. With cloth thus prepared, after the jar is filled with the hot preserves, and while still hot, close the mouth and bind it on with good linen cord. Then with shears trim off as much of the wax cloth as is desirable, and then dip it in some melted wax, which should be made with only about half as much tallow. Sealing-wax may be used if desired. The jars should be put where the wax will cool at once, so that the exhaustion caused by the cooling of the preserves and the condensation of the steam, may not cause the wax to run through the cloth. Nothing can be more thoroughly air-tight than bottles or jars so prepared.—*Home-stead*.

**THE IOWA CROPS.**—The wheat crop of Iowa is abundant this season, though scarcely so heavy as last year. It is estimated that the people of Iowa will have a surplus of twenty millions of bushels this season. A gentleman who has traveled some 400 miles through Southern Iowa, describes the crop of wheat as very good, and corn as never having looked better.

*For the New England Farmer.*

#### LETTER FROM THE HOMESTEAD.

*Chester, N. H., Aug. 26, 1861.*

MY DEAR MR. BROWN:—As you seem by your note at the end of my last letter to appreciate the importance of my employment in repairing the Homestead, I may as well write of the question, which comes up for discussion, on every occasion of building or repairing, in the country,

#### WHAT COLOR SHALL THE HOUSE BE?

White for the house, and black for the coffin, were the fashionable New England colors, I think, almost universally, half a century ago. This fashion of white for dwellings for the living, in the rural districts, continued until about twenty years ago, when Downing published his "Cottage Residences." Then it suddenly occurred to aspiring rural gentlemen, that white was vulgar, and the idea being that the farther we went from white the more genteel, we soon beheld the light of heaven profaned with all sorts of dismal, dark brown, sombre-hued houses, and as there is a sort of natural instinct that the living and dead should have some distinction made in their dwelling-places, the old mourning hue of coffins was, at about the same time, changed to red or mahogany.

Now, as we travel in New England, we see perhaps half or more of the houses, still white, and the rest of various hues, most of them being painted in some color, the basis of which is white lead. As the expense is but very little increased by the addition of any desired color to the lead, it becomes a mere matter of taste what color we shall adopt, and is therefore a question worth considering. There are, it is true, some cheap dark colors, suitable for outbuildings, such as we see upon rough railway stations, and which it may be often best to use for economy. I have recently seen a statement that common hydraulic cement with skim milk forms a good paint for rough work. It is very cheap, and might take the place of whitewash, where the glare of white is to be avoided.

As to *white*, I confess to the opinion, that in the country proper, a house, and especially a cottage, well embowered in trees and vines, purely white, with the old-fashioned dark green blinds, strikes my eye very pleasantly. These same blinds, which are called Venetian, and have been flouted at by architects, as having no fitness for the *outside* of windows, still retain their place, almost universally in New England, and the reason is very creditable to us; it is because, in our hot summer days, there is nothing else so comfortable. Blinds inside the glass, receiving the rays of the sun in full force, are heated and transmit their heat, to the room, while outside blinds,



although heated to the same degree, transmit no heat through the glass. And as to the color of blinds, nothing so agreeably softens the light, as the old-fashioned dark green. Therefore, I think any person who prefers to have his country house white, with green blinds, may defend his taste in so doing.

If, however, you have a neighbor close by, whose house is not shaded with trees, and who will have it glaring white, you have reason to complain. He might almost as well cover his house with looking-glasses, and continually flash the sun into your eyes. A bare white house with the sun full upon it, at about two o'clock, P. M., in July, and sand or gravel all around, is nearly as bad to approach as a rebel masked battery. No man has a moral right to have his house or fences white, unless he shades them with foliage, and relieves them with green sward. Artists usually avoid the introduction of white into their landscape pictures, because it does not harmonize with other colors. Downing says that Price, in his essays on the Beautiful and Picturesque, expresses the idea that very white teeth gave a silly expression to the countenance, and Horace Walpole called somebody—"the gentleman with the foolish teeth." Most of us, however, would regard any person as "foolish," who prefers teeth of any color than white.

In England, there are no white buildings, for the very good reason that the climate will not allow them to stay white, if so painted. There, everything takes a sober gray tint, whether you will or no.

Though we tolerate white, yet we do not commend or use it. But what shall the color be? The old mansion was to be painted anew. For sixty years it had been white or a light straw color. There are serious objections to very dark colors. They absorb heat, making the house warmer in summer, and causing the wood to shrink and expand with the alternations of weather. This is a practical, not merely a theoretical matter, as this very house will testify. The back side of the house, which is the south side, was originally painted dark red with Spanish brown, for economy, as was the almost universal fashion fifty years ago, when white lead was more costly. It has been kept of the same color ever since, repainted as often as the rest of the house. The effect of the heat and cold has been such, that many of the nails were entirely drawn out, and most of them were started, and many clapboards cracked, so that the painter and I, upon solemn consideration, concluded that they did not deserve a coat of paint, and condemned them to remain, after carefully re-nailing, until the house needs another painting, then to be renewed, and painted with the rest.

A witness is bound to tell the whole truth, and I have doubts whether the difference in color tells the whole story. It is just twenty years since the house was painted, and then it received two heavy coats. It looked rusty, but by no means bare, except on the window sills and some exposed spots, not worse than the meeting-house which has been painted two or three times since, and stands right out-of-doors, without shade or shelter. Three sides of the house are so covered with trees, that in summer time, only a glimpse of a chimney or a window, occasionally, is caught by the traveller, till he reaches nearly to the door. The trees are elms, rock-maples and horse-chestnuts, and they are thick enough to break the blasts, even in winter, and to entirely shade in summer. I think the paint has worn twice as long on account of this protection, and not one of the nails, which, by the way, are of wrought-iron, had started. The back of the house is unsheltered by trees, and takes the unmitigated heat and cold. Trees should not touch the house, nor lie over the roof, because they render it damp and unhealthy, and promote decay, if too thick and near; but with their stems, say at twenty or thirty feet distance, they are a blessing and a comfort every way. When the Swamscut House and other buildings were burnt at Exeter, the fine old church, which stands opposite, was only saved from destruction by the row of young elms which stood in front of it, which held up their green, leafy screens between it and the flames, and suffered martyrdom in its cause. There was much talk of it, at the time, and for once, "the poor wise man who saved the city," by planting trees, was held in honor.

Sir Joshua Reynolds advised to paint the house the color of the fresh soil on which it stands! and on the whole, though there is no rule for taste, it is perfectly safe to say, that soft, quiet shades, such as gray, drab, fawn, light brown are always pleasing, while *violent* colors, such as yellow, red and green are not so, in house coloring.

As to contrasts, ladies and artists profess to know what colors match. Nature contrasts by laws not much esteemed by milliners. Her green leaves and blue sky, her many-colored flowers set in green sward, or in leafy festoons, and again, her dark eyes and hair, with a white skin and teeth of ivory, defy all precise rules of combination. It was an old fashion to paint farm-houses red, and sometimes yellow, with white trimmings. Of late, and perhaps by Mr. Downing's teachings, it is thought in better taste to paint the trimmings of a darker shade than the body of the building.

After proper deliberation, we have adopted this idea upon the family mansion, giving the house a sort of gray stone color, the trimmings and fence a decidedly darker shade of the same, and

the sashes and doors, what the painters call bronze-green. Two coats, at intervals of a few days, have thoroughly done the work, making an improvement delightful to the eyes of us all who feel an interest in the homestead. The best and most economical way to preserve a house, is to paint it, say, over once in three or four years, but this is not always convenient, and most of us are obliged to do as we can, and not as we would, and to atone for past neglect by additional present expenditure.

While upon the subject of painting, I will add a suggestion to those who contemplate building good houses, and that is, to finish their best rooms, if not the whole house, with wood in its natural color unpainted, but merely oiled. We pay from four to five cents per foot for the best pine for inside finish, and the charge for three coats of paint is about two cents per foot, making six or seven cents per foot for the wood and painting. Now, black walnut is sold at six or seven cents per foot, and it is an easy wood to work, and once finished, it would require no expense to preserve it handsome forever. Chestnut is now used in Boston, for banks and offices, as well as for furniture, and makes a beautiful finish. Bass and white wood, and even white pine, with a coat of varnish, are all handsome, soft woods. The common oil-nut is a soft, but handsome wood, and the maples and birches are beautiful, though hard to work. When it is considered that it costs from fifteen to eighteen cents per square yard for all the painted work well done inside a house, it is worth considering whether good taste and economy may not both be promoted by using woods in their natural colors, and dispensing with much of our inside paint. Asking pardon of the reader for so much "easy writing," which Charles Lamb says "is usually very hard reading,"

I remain your friend,

HENRY F. FRENCH.

#### MANNERS AND LIVING IN 1700.

The undress of both sexes was often coarse and slovenly beyond any example, even among the lower orders in modern days. Gentlemen used to walk about all the morning in greasy night-caps and dirty night-gowns (dressing-gowns) or threadbare coats. The elder ladies wore large linen caps called toys, encroaching on the face, and tied under the chin, with worsted short gowns and aprons. The word toy is probably derived from the French *toque*, the hood worn by women of mean condition in France. The clergy in my early life were not less slovenly than their neighbors. Many of them wore colored clothes of very coarse materials. Blue was the common color for full dress among persons of my own profession in Scotland at that time. Butcher's meat was rarely eaten by laborers and servants, except in the houses of stock farmers, who found their account in consuming at home that part of their

stock which was unfit for sale. There was no regular butcher market except in towns and the larger villages, and the articles brought to market consisted chiefly of mutton, lamb and veal. Even in principal towns beef was seldom to be had in the market, except, perhaps, on the occasion of fairs, or the country meetings, which brought together a number of country gentlemen, and usually ended in conviviality.—*Somerville's Life and Times*, (1741–1814.)

#### FAREWELL, SUMMER.

Sounds are in the earth and ether,  
Sobs and murmurs half-divine ;  
Blasts beyond man's puny power  
Rock the branches of the pine.  
The summer past, what dreams are over !  
The incense of the air hath fled :  
The carpets of the golden meadows  
Are torn by tempests, shred by shred :  
The rose hath lost her fragrance ;  
The lily hangs her head,—  
Dead,—dead !

BARRY CORNWALL.

#### WORK AND PLAY.

Recreation can be fully enjoyed only by a man who has some honest occupation. The end of the work is to enjoy leisure ; but to enjoy leisure, you must have gone through work. Play-time must come after school-time, otherwise it loses its savor. Play, after all, is a relative thing ; it is not a thing which has an absolute existence. There is no such thing as play, except to the worker. It comes out by contrast. Put white upon white, and you can hardly see it ; put white upon black, and how bright it is ! Light your lamp in the sunshine, and it is nothing ; you must have dark around to make its presence felt.

And besides this, the greater part of the enjoyment of recreation consists in the feeling that we have earned it by previous hard work. One goes out for the afternoon walk with a light heart, when one has done a good task since breakfast. It is one thing for a dawdling idler to set off to the continent, or to the Highland, just because he was sick of every thing around him ; and quite another when a hard-wrought man, who is of some use in life, sets off as gay as a lark, with the pleasant feeling that he has brought some work to an end, on that self-same tour.

And then a busy man finds a relish in simple recreations ; while a man who has nothing to do finds all things wearisome, and thinks that life is "used up ;" it takes something quite out of the way to tickle that indurated palate ; you might as well prick the hide of a hippopotamus with a needle, as to excite the interest of that *blase* being by any amusement which is not spiced with the cayenne of vice. And that certainly has a powerful effect. It was a glass of water the wicked old French woman was drinking, when she said, "O ! that this were a sin, to give it a relish !" — *Recreations of a Country Parson*.

TO MAKE HENS LAY.—I send you a good recipe for making hens lay :—Take some oats and boil them until soft ; then fry them in hot fat, and you will have any quantity of eggs.—*Prairie Farmer*.

## EXTRACTS AND REPLIES.

## TO PICKLE OR PRESERVE RIPE CUCUMBERS.

Some two years ago a gentleman gave me a recipe obtained in Pennsylvania, for pickling or preserving ripe or yellow seed cucumbers. It has occurred to me that in this season of great scarcity of the fruits usually used in making preserves, it might be a public benefit if you would publish it in your valuable paper. I send it as it was given to me. I think a better preserve can be made by using a pint or pound of vinegar to four pounds of sugar and eight of fruit. The specimen is slightly flavored with nutmeg, and will be much better when the sugar and spice shall have thoroughly permeated the fruit.

Without pretending to "extract sunbeams from cucumbers," I think you will agree with me that a very desirable, not to say delicious article, may be obtained from a substance usually considered worthless.

WILLIAM F. WHEELER.

*Lincoln, Sept. 16, 1861.*

REMARKS.—Mr. WHEELER was kind enough to bring us a jar of the preserves which he had prepared, and it is both beautiful and delicious. No one would suspect its being cucumber. It is a most delicious "sweet pickle," and to those who need acid will prove a valuable acquisition to the condiments of the table. The recipe he handed us is as follows:

Take cucumbers thoroughly ripe, pare them and scrape out the seeds. Cut them in slices to suit convenience and soak them in vinegar, from 12 to 24 hours. Boil them in fresh vinegar, sweetened and spiced to suit the taste, until they become tender. They may be made as preserves by making the vinegar sweet and rich enough to be eaten as juice, which will require about four pounds of sugar to ten of fruit. The vinegar should be of the best kind.

## FAILURES AS WELL AS SUCCESSES.

Some one has lately raised the query, whether, in speaking of crops, it is not duty to tell of failures as well as successes in cultivation. I say not. Every lazy fellow can find enough of this knowledge, within the limits of his own experience. To speak of successful culture and how it is brought about is the kind of teaching that is most commendable. Instance the Indian of two hundred years ago, who, living mainly on the fish taken from the stream, knew that by inserting a kernel of corn in the earth, a plant would spring up, from which, perhaps in nine cases out of ten, an ear might be expected. But he had not learned to prepare the earth, so that ten stalks might grow where but one grew before; and that each of these stalks might yield two or more ears, full and complete, instead of one, pinched and shrivelled. Such carpings on useful communications show a narrow mind and perhaps a disappointed ambition. Let us have the story of all full crops, and how they are made so; and let those who have hitherto neglected to learn, profit by the instruction. P.

*August 30, 1861.*

REMEDY FOR BLIND STAGGERS.—A writer in the *Charleston Courier* gives an effectual remedy

for that formidable disease in horses, the blind staggers, the recipe being as follows: Gum camphor one ounce; whisky or brandy, one pint—dissolve. Dose—One gill, in a half pint of gum arabic, flax seed, or other mucilaginous tea, given every three or four hours; seldom necessary to give more than three doses. The horse must be kept from water twenty-four hours. Never bleed in this disease.

## ACTION OF SALT AND SALTPETRE ON MEAT.

The following interesting account of the action of salt and saltpetre on meat will doubtless be new to many of our readers:

The manner in which *salt* operates in its preservative functions is obvious. Salt, by its strong affinity, in the first place, extracts the juices from the substance of meat in sufficient quantity to form a saturated solution with the water contained in the juice, and the meat then absorbs the saturated brine in the place of the juice extracted by the salt in the first place. Thus, matter incapable of putrefaction takes the place of that portion of the meat which is most perishable. Such, however, is not the only office of salt as a means of preserving meat: it also acts by its astringency in contracting the fibres of the muscles, and so excludes the action of air on the interior of the substance of the meat. The last-mentioned operation of salt as an antiseptic is evinced by the diminution of the volume of meat to which it is applied.

The astringent action of *saltpetre* on meat is much greater than that of salt, and thereby renders the meat to which it is applied very hard; but in small quantities it considerably assists the antiseptic action of salt, and it also prevents the destruction of the florid (or red) color of the meat by the application of salt. From the foregoing statement of the mode of operation of salt and saltpetre on meat, it will be perceived that the application of these matters deteriorates, in a considerable degree, the nutritive, and, to some extent, the wholesome qualities of meat; and, therefore, in their use, the quantity applied should be as small as possibly consistent with the perfect preservation of the meat.—*Farmer and Gardener.*

TO RIPEN LATE TOMATOES.—The tomato season ends with the first part of autumn. If the plants are pulled up before the frost comes, and hung up in a well ventilated cellar, with the tomatoes on them, the fruit will continue ripening until Christmas. The cellar should not be too dry, nor too warm.—*Genesee Farmer.*

In Britain we hang them up under the roof of a vinery or peach-house, from which the fruit has been gathered. In this way they ripen, although quite green when removed from the ground. So excellent a fruit, however, deserves to be grown throughout the winter, which is easily done by growing them in twelve-inch pots, and setting them in a melon or cucumber pit, after the melon crop is finished. In a mean temperature of 65° they will continue to grow and ripen their fruit until the season returns for commencing melon culture again.—*Scottish Farmer and Horticulturist.*

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 15.

WARBLERS.

Myrtle Bird, or Yellow-Crowned Warbler—Yellow Red Poll Warbler—Black and Yellow Warbler—Summer Yellow Bird, or Yellow Warbler—Blackburnian Warbler.

The genus *Sylvicola*, of Swainson, (nearly synonymous with the genus *Dendroica*, of Gray, adopted in later systems,) embraces a considerable group of the Warblers that inhabit our forests, and at times frequent our gardens and orchards, some twenty species being found in New England—beautiful little creatures, of which some, possessing considerable powers of song, and subsisting upon insects, are of great benefit to the interests of man, and are wholly devoid of harmful proclivities.

The YELLOW CROWNED WARBLER, or MYRTLE BIRD, (*Sylvicola coronata*, of Swainson, Audubon, DeKay, and others; *Dendroica coronata*, of G. R. Gray,) is doubtless the most numerous, as well as one of the handsomest, of all the Warblers that visit us. During the last days of April they generally begin to arrive in New England from the Southern States, they spending the winter among the cedar and myrtle swamps of the Carolinas and adjoining States, and for about ten days frequent alike every thicket, orchard and garden, in considerable numbers, searching the opening buds and tender expanding leaves for the destructive insects and their larvæ that at this time prey upon the tender foliage, and are thus of great services in checking the ravages of these destructive pests of vegetation. Some seasons they appear for several days to exceed in numbers any, if not all others, of our small birds; yet each individual or party stops with us but a very short time, and in constant restlessness while here, hurries northward, and others continually arrive to briefly fill their places; and in a few days all have left for more northern countries, where they spend the summers, and rear their young. About the beginning of October they again appear in great numbers, spend but a week or ten days with us, and proceed slowly southward to spend the winter. At this time the beautiful colors that adorn them in the spring are obscured, and they might easily be taken for a different species. This species has been frequently described as the *Yellow-Rumped Warbler*; and from its subsisting chiefly in winter on the berries of the myrtle, (*Myrica cerifera*,) has acquired the name of *Myrtle Bird*. Its habitat extends over the whole of eastern North America, as far westward as Missouri.

This species is five inches and a half in length, and eight inches in alar extent. Whole upper parts, (in the spring,) fine slate-blue, streaked with black, except the crown and rump, which, with the sides of the breast, are rich yellow; under parts, white; breast and sides black, edged with white; spots of white on the three exterior tail feathers, and two bands of the same on the wings. The female has the colors less vivid than the male. In the autumn the sexes are similar, of a plain brown or "mouse color," faintly streaked with black; the yellow on the rump is still conspicuous, but on the crown and sides of the breast only perceivable on a close examination.

The YELLOW RED-POLL WARBLER, (*Sylvicola*

*petechia*, of Swainson, Audubon and others; *Dendroica palmarum*, of Prof. Baird,) arrives from the south about the middle or 20th of April, and, though not a numerous species, is not unfrequently met with for two or three weeks, when it retires to swamps and secluded situations to breed, spending the summer with us. On its first arrival in spring, it frequents the orchards and gardens, (as well as the borders of thickets and fences,) in company with the Pine Warbler, (*Sylvicola pinus*,) its allied congener, and often alights on the ground to search for its food, which mainly consists of larvæ and winged insects. As soon as the season has advanced it is very rarely seen, and about the last of September leaves us for the South, as it spends the winter in the southern parts of the Union; in summer it inhabits the whole United States east of the Mississippi river. Its few notes are hardly deserving the name of song.

Length five inches; extent seven and a half; line over the eye, and lower parts, fine, bright yellow, the breast striped with dull red; crown, reddish-chestnut; brownish-gray-olive above, streaked with dusky, and inclining to greenish-olive on the rump; tail with white spots on the outer feathers.

The BLACK AND YELLOW WARBLER, (*Sylvicola maculosa*, Swain.; *Dendroica maculosa*, Baird,) or *Spotted Warbler*, of some authors, is generally considered a scarce species, (Wilson speaks of meeting with but two individuals,) but for several years I have observed them quite frequently in our woods in May, particularly the present year, when, for a few days about the 23d, a dozen might be obtained in a few hours; and in September again I have often met with them. They inhabit the whole United States east of the Missouri river, according to Prof. Baird, and south to Guatemala; and they doubtless breed in the northern parts of New England, as an ornithological friend informs me he has observed them in the vicinity of the White Mountains early in July. They are generally shy, and are rarely seen outside of the thicket or forest, feeding much upon insects that infest the common birch at this season, when the leaves are tender and but half expanded. Its notes are peculiar and pleasing, but hardly deserving the name of song.

This elegant species measures five inches in length; stretch of wings, seven and a half; upper part of the head light grayish-blue; front, lores, cheeks, and a line beneath the eyes, black; a large black patch on the back, bordered with greenish; lower parts yellow, fading into white on the abdomen, and streaked with black on the breast and sides; broad, white bands on the wings; tail, like the wings, black, with a large spot of white near the middle of each feather, except the two middle ones. The female corresponds with the male in the markings of the plumage, but the tints are much paler. Both sexes are quite differently marked in the fall.

The YELLOW WARBLER (*Sylvicola æstiva*, Swain.; *Dendroica æstiva*, Baird,) often called the *Summer Yellow Bird*, to contradistinguish it from the common Yellow Bird (*Carduelis tristis*,) a resident species, is a very common summer species in many localities, in the eastern part of the United States, and its habitat is said to extend over the whole United States, from the Atlantic

to the Pacific, and south to Guatemala and the West Indies. It arrives in New England early in May, frequenting the shrubbery of the garden and the trees of the orchard while in blossom, feeding on the noxious insects that infest them, and, spending the summer with us, generally rears two broods of young in a season. Its nest is neatly constructed in the fork of a bush, of tough fibrous grasses and flax-like substances, softly lined with hair and down from ferns; the eggs are four or five in number, white, sprinkled with small pale brown spots and specks. Willows and poplars that frequently skirt river banks and the shrubbery of alluvial meadows, seem to be a favorite resort of this species. I have observed many in such situations, when, at the same time, in a different kind of country immediately contiguous, for miles around none were to be met with. The Yellow Warbler is quite unsuspecting, and very sprightly in its natural pursuits; its song, though short, is uttered with spirit, and quite agreeable.

The length of this bird is five inches; extent seven. Head and whole lower parts bright yellow, with narrow streaks of red on the breast and sides; rest of the upper parts greenish yellow. The colors of the female are somewhat paler than those of the male. There is a slight difference in the intensity of the colors observable in individuals of the same sex; "and specimens from the Pacific coast," Professor Baird observes, "appear rather smaller, with less conspicuous streaks than eastern specimens;" and there seems to be a variety with minute reddish streaks on the head. The Children's Warbler (*Sylvia Childreni*) of Audubon, of which he saw but a single pair, is considered an immature bird of this species; and the Rathborn Warbler (*Sylvicola Rathbonia*) of the same ornithologist, of which he speaks of meeting but a single pair, is also referred to this species by Baird.

The BLACKBURNIAN WARBLER (*Sylvicola Blackburnia*, Jardine, Audubon, DeKay; *Dendroica Blackburnia*, Baird,) is one of our rarest species, and is justly considered the most beautiful of those delicately colored birds embraced in the group of American Warblers. It is sparingly diffused over the eastern parts of North America, at least, as far north as Canada, wintering in the tropical portions of the continent. It arrives in New England about the middle of May, and is generally observed in thickets or woodlands, seldom appearing in cultivated grounds. DeKay mentions that it spends the summer in the State of New York, as it doubtless does in various parts of New England, though I have never yet met with it later than the early part of June. Its numbers are so few it might easily escape detection in the summer, and even at the migratory seasons it is rarely met with. It subsists chiefly upon wingless insects, and its habits, so far as known, are similar to those of the preceding species.

The length of this warbler is five inches, extent eight and a half inches—according to Wilson, four and a half inches in length, and seven in extent. Upper parts deep black, with a large patch of white on the middle of each wing; crown, sides of the head and neck, throat and breast, bright orange red, or fiery orange; rest of the lower plumage white, with streaks of black on the sides, and a yellowish orange tint on the

belly and breast. The female is similarly marked, but has the colors fainter.

Professor Baird refers the *Hamlock Warbler* (*Sylvicola panus*), first described by Wilson, and subsequently by Audubon, Nuttall, and others, to this species, considering it as the Blackburnian Warbler in its autumnal dress; for which there seems hardly sufficient reason;—but further attention will be given to this point in a future number.

J. A. A.

Springfield, July 29, 1861.

For the New England Farmer.

#### RETROSPECTIVE NOTES.

SUGGESTED BY SEPTEMBER—MUCK AND COMPOSTS WITH MUCK.—The former of these headings is that of the leading article of the *Farmer* (monthly) for September. We have so often experienced advantage from articles in the form of "Calendars of Operations," "Farm Calendars," "Suggestions for the Season," and such like, and have so often found others of our farming brethren who make a practice of resorting to a Calendar of some kind, as a prompter or remembrancer, when laying their plans for the coming month or season, as to be convinced that these helps to the memory under the designation of Calendars, Suggestions for the Season, &c., must be useful articles to all who plan their work beforehand, and aim to have everything attended to in its proper season. Some of the less systematic of our brethren may undervalue these useful remembrancers of seasonable work; but within our individual circle of observation, we have ascertained by inquiry that they have been generally consulted by those who plan their work ahead, and who are at once the most systematic and the most successful among our acquaintances. It is our opinion, therefore, that the Editor of the *Farmer* would do a service to his readers, which would be both valuable and likely to be duly appreciated by the more intelligent and systematic of them, if he would give to a Calendar for each month, or Seasonable Suggestions, a more constant, more extended, and more prominent place than he has lately been in the habit of doing. Though there must be a great sameness in such articles from year to year, their convenience and utility will fully counterbalance this objection.

Among the more important of the items "suggested by September," is that in which the present season of the year is recommended as a good time for digging and drawing out muck. We have found September, and not unfrequently, also, the following month, October, the most convenient season of the year, all things considered, for these operations. The marshes and other deposits of muck are usually dry, or comparatively so, and there is, too, during these months, a degree of comparative leisure, which, combined, render these two months, when the weather is not wet or otherwise exceptional, the most appropriate portion of the year. This remembrancer may, therefore, serve to save some from neglecting this highly important operation until it might be too late. That it is an important piece of work, which should not be neglected by any one who has a deposit of muck upon his farm, no one can doubt who has read the many testimonies in regard to

the value of muck and muck composts which have been given to the public during the last few years, or who has read no more in relation to it than the series of articles which were published in the *Farmer* during the year 1860. Those who own the volume of this journal for that year, and who have it stitched or bound so as to be convenient for consultation or reference, will readily find the articles referred to by consulting the Index.

THE BAROMETER—page 305.—This article, on the whole, bears testimony in favor of this instrument as an aid to the farmer in "guessing" or prognosticating what the state of the weather is likely to be for a day or two ahead—a kind of "guessing" which is of no little service to all farmers during haying and harvesting, whether they be born guessers like the Yankees, or only bunglers at this important business, for which New Englanders are proverbially celebrated for having a peculiar faculty. But though, on the whole, the testimony of Dr. True in this article is in favor of the value of the Barometer as an indicator of the weather for some time ahead, yet there is one remark made in it which we feel disposed to challenge and correct, as some farmers might be hindered thereby from availing themselves of the aid of this truly valuable instrument. The remark to which we refer is the following: "The barometer has been much lauded of late as a sure indicator of the state of the weather; but the farmer who places implicit reliance on its indications will surely be disappointed." To this last clause of the sentence quoted, we feel prompted to object most emphatically, both because it conveys an erroneous impression, and because that impression can operate only to the injury of those who may be dissuaded by it from availing themselves of an instrument which every intelligent farmer, properly instructed in the interpretation of its indications, will certainly find of great advantage to him. Instead of saying, as Dr. T. has done, that the farmer who places implicit reliance on its indications will surely be disappointed, those best qualified to testify in regard to the barometer would unite in saying, that those who have been instructed thoroughly in the interpretations of its indications may rely upon them with the most unhesitating implicitness, and will never be disappointed. We are perfectly aware that there are two conditions absolutely essential to securing this ability to interpret the indications of the barometer aright, and to a consequent immunity from all disappointment in relying thereon. The first of these conditions is the possession of a set of correct rules and observations for the interpretation of the ever-varying indications of this instrument; and the second is, the possession of a good degree of sound judgment, native gumption, common or uncommon sense, or whatever else may be the most appropriate name for that quality, for the want or deficiency of which men are continually blundering in all matters, and would blunder certainly in using a barometer, even if the best set of rules for using it rightly were at their command.

But the possession of a pretty full and a perfectly correct set of rules and observations for the right use of a barometer is so absolutely necessary to a proper understanding of the indications of this instrument, that we would advise all manufacturers of it to employ a well qualified person

to select from the various rules and directions which have been printed in Encyclopedias and scientific treatises, those which would be specially adapted to the use of farmers using this instrument, and have those rules and directions printed on a firm card, or in any other lasting form, to be given to all purchasers. And we would advise all intending purchasers to refuse to purchase until such a set of rules is provided as an aid to the right use of their purchase. We would also say that good barometers have been sold for less than \$10. MORE ANON.

#### THE LIGHT OF THE HEARTH.

She comes with fairy footsteps;  
Softly the echoes fall;  
And her shadow plays like a summer shade  
Across the garden wall.  
The golden light is dancing bright,  
Mid the mazes of her hair,  
And her fair young locks are waving free  
To the wooing of the air.

Like a sportive fawn she boundeth  
So gleefully along,  
As the wild young bird she carolleteth  
The burden of her song.  
The summer flowers are clustering thick  
Around her caroling feet,  
And on her cheek the summer breeze  
Is breathing soft and sweet.

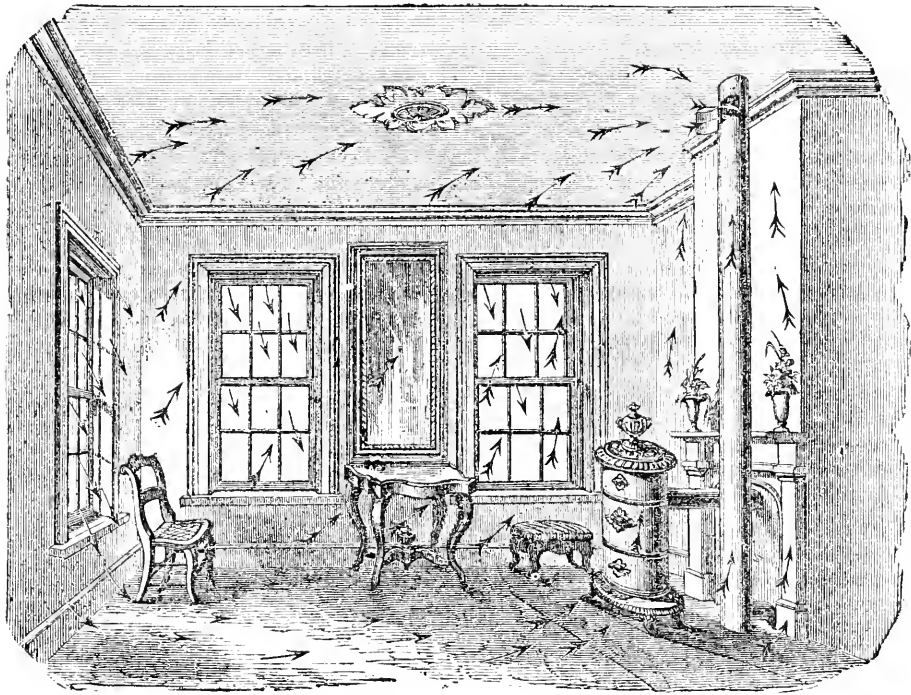
The very sunbeams seem to linger  
Above her holy head,  
And the will flowers at her coming  
Their richest fragrance shed.  
And O, how lovely light and fragrance  
Mingle in the light within!  
O, how fondly do they nestle  
Round the soul that knows no sin.

She comes, the spirit of our childhood—  
A thing of mortal birth,  
Yet breathing still a breath of Heaven,  
To redeem her from the earth.  
She comes in bright-robed innocence,  
Unsoiled by blot or blight,  
And passeth by our wayward path,  
A gleam of angel light.

O, blessed things are children!  
The gift of heavenly love!  
They stand betwixt our worldly hearts  
And better things above.  
They link us with the spirit world  
By purity and truth,  
And keep our hearts still fresh and young,  
With the presence of their youth.

GREAT TRUTH IN A SMALL PARAGRAPH.—One secret of the practical failure in after life of so many promising young persons is, I apprehend, that they did not learn that a man's capacity and success in the world is estimated, not by what he can do, but by what he does do. The opposite heresy is, I am sorry to believe, early imbibed in most of our seminaries of learning. How the youth of genius, real or supposed, is worshipped by his associates, and too often by society also, while the more diligent plodder is left in neglect to "work out his own salvation," as he almost infallibly does!

GARGET.—A correspondent of the *Prairie Farmer* says: "I had a few days since a new milch cow, whose bag was very badly caked, so much so that cold water, soapsuds, spirits of camphor, &c., had no effect upon it. I asked our family physician for a prescription, who gave me this: one part aqua ammonia; two parts sweet oil, rubbed in twice daily. In two days she was cured."



A NEW VENTILATOR.

Mr. Lyman sends us the above cut and the accompanying description of a new ventilator, which has the advantage of *not* being a patented "notion," and of being of easy application to any style of room. As we have never seen one in operation, we allow Mr. Lyman to speak for himself.

The ventilator consists of a pipe which is open at the top, and connected with the chimney flue at the bottom of the room, as seen in the cut. In rooms warmed by stoves the supply of air comes in at the windows and doors, and being colder than the air in the room, falls to the floor, as is represented by the cut, by the arrows without feathered ends; as this cold air comes in contact with the stove, furniture and persons in the rooms, it becomes rarified, and rises to the ceiling, as represented by arrows with feathered ends. On its way up it becomes impure by the exhalation of our bodies and lungs, and by the draft of the chimney is drawn off, from the upper part of the room, down through the ventilator, and is discharged into the chimney flue at the bottom of the room. If it entered the flue at the *top*, it would destroy the draft of the stove. In a room occupied by from three to six persons, the pipe should be seven inches in diameter, if round, if oval (as in the cut) ten inches by five, with a seven-inch round pipe, to connect it with the flue at the bottom of the room. If the room is large,

eleven by five and a half inches connected with the flue by an eight-inch pipe is none too large. I have some thirty of them in operation, and none fail to do well. Some of them have been in use four years. A round, tin pipe, seven inches in diameter, costs from \$2,50 to \$3,00; if oval, about \$4,00. All who have used it prize it very highly. I think it a better ventilator than an open fireplace. It is not patented, and is free to all. In rooms warmed by a furnace the ventilation should be from the bottom of the room, because the supply air being heated, it rises to the top of the room before it is used.

DAVID LYMAN.

Middlefield, Ct., Aug. 23, 1861.

SEAMLESS SHOE-UPPERS.—A patent has recently been taken out in England for making the leather uppers of shoes without seams, so as to save the expense of sewing, and, at the same time, obtain uppers that are never affected with the ripping-out disorder, which has become so common with uppers that are sewed with some machines. The method of making the seamless uppers is to cut them out the desired shape with the middle opening for the foot: then put each into a mold, where it is pressed into proper shape, ready for the last on which to sew the welt and sole. Shoes thus made are said to be more durable than most of those which have sewed uppers, and prove economical to the wearer.

## SELECTING SEEDS.

It is perhaps well known to many farmers that one of the most certain methods of accelerating the ripening of vegetables, is to select, annually, the seeds of the most forward. Corn, wheat, potatoes, indeed, every variety of vegetable production, may in this way be advanced in forwardness, and with actual benefit to the crop, both as regards size and value. The following, from the Massachusetts Agricultural Society's Papers, demonstrates not only the practicability, but the high importance, also, of this rule. The account was communicated to the Trustees of the Society by a gentleman of well known veracity—Mr. James Freeman, Sept. 1st, 1805 :

"To ascertain whether the ripening of seeds can be forwarded by sowing those which are the earliest ripe, I have made experiments, all of which have been successful, on several varieties. It will be sufficient to mention only one :

In the year 1801, I planted the '*case knife*' bean. The pods first formed, commonly those nearest the roots, were reserved, and when about the quantity of a peck were ripe, they were gathered on the same day. The largest and fairest of the seeds were planted the next year, and the first formed pods reserved as before. The same method has been pursued without any variation till the present year; by means of which, while the bean has not deteriorated in quality, the ripening of the seeds has been forwarded *twenty-six* days, as will appear from the following table :

| PLANTED.             | GATHERED.    | No. OF DAYS. |
|----------------------|--------------|--------------|
| 1801.....May 20..... | Sept. 9..... | 112          |
| 1802.....May 11..... | Aug. 21..... | 302          |
| 1803.....May 10..... | Aug. 8.....  | 90           |
| 1804.....May 8.....  | Aug. 4.....  | 83           |
| 1805.....May 6.....  | July 31..... | 86           |

In concluding his account of this interesting experiment, Mr. Freeman remarks :

"As in the second and following years I anticipated the time of planting the seeds, (by which means fourteen days have been gained in addition to the twenty-six above mentioned,) to determine what effect later planting would produce by giving the seeds more advantage from the heat of the summer, in 1804 and 1805 I put into the ground a quantity of seed about a week later than that which was first planted. The event which took place is exhibited in the following table :

| PLANTED.             | GATHERED.   | No. OF DAYS. |
|----------------------|-------------|--------------|
| 1804.....May 11..... | Aug. 8..... | 88           |
| 1805.....May 13..... | Aug. 6..... | 85           |

"As very little time has been gained in the present and preceding year, I suppose I have now reached, or nearly reached, the '*ne plus ultra*.'"

That is, that his trials would not carry him any further.

We have many farmers who have acquired an enviable notoriety for their liberal and judicious efforts to elevate the character of the agricultural profession, both by practical experiments and written precepts, who state that they have advanced the period of maturation in certain seeds, simply by selecting for seed, the ears of corn, or

heads of seeds, which were first ripe. Where corn was originally by no means remarkable either for size or forwardness, it not only became early, but the number of ears was greatly increased, and their size large and well developed.

In cold climates, where early frost frequently proves injurious or fatal to the corn crop, accelerating the maturation of the grain in this way, would obviate much trouble, and not unfrequently, heavy losses. The selection of seed is by no means difficult, as it can be done as soon as the corn begins to ripen; a few bushels of ears being sufficient to supply a large farm. Wheat, peas, beans, barley, oats, rye, and indeed every description of grain, may be selected in the same way, and with equal facility and ease. Those only who have had practical evidence of the advantages of this course can appreciate the gratifying results consequent upon its adoption. There is probably no vegetable cultivated as food for man and beast which such a course will not modify, to some extent, for the better.

## THE CHECK REIN.

When Stewpyd harnesses his horse for dragging brick up a grade, the horse's head is pulled back towards his tail and anchored there by the senseless and merciless check rein. The arrangement is unnatural, the animal is constrained by it. He must inevitably lose strength by it, for it disturbs the vital force, and induces an unnatural action in the muscles of the head, neck, shoulders and mouth. There is actually less energy and vigor left for the limbs and chest than there would be if the useless contrivance was jerked off and thrown over the nearest fence. If reason cannot teach this promptly to any man, just let him try the experiment by putting a martingale upon himself and go to wrestling, or putting a check in the jaws of a boxer that shall extend down his back to his belt.

Who beside the British use the check rein, saving their general imitators, the Americans? The French do not use it, the Germans do not, the Indians and Spaniards of South America, who literally live on horseback, and are perfect horsemen, do not, the Spaniards of Europe do not, nor do the Turks. The most observant and most natural people in the world are free from this mischievous error. It is strange to us, that the English and ourselves did not, years and years ago, reason upon the constantly witnessed fact, that when a check rein was loosed at a tavern-stoop or in a stable, the poor horse always stretched out his neck and hung down his head. That was his language for saying that the strap hurt and wearied him, and that he was heartily glad to be relieved from it.

The genius that first proposed the mechanical feat of lifting himself up by the breeches, must have been the author of the theory that the check rein held the horse up and kept him from falling. The mechanical action in the two cases must be precisely the same. If the reader will reflect for a moment, he will see that no suspending power



can be derived, except from without the animal. A post, tree or beam is just as indispensable to the support of a horse as to the support of a man intent on suicide. A horse can't hang himself up in the air by the terrets on his back, any more than a man can by pulling upwards at his neck-handkerchief.

The check rein should be abolished. It wastes motive power. Its use is unhealthy, for it disturbs the otherwise naturally and equally distributed vital forces. It shortens the life of the horse. It diminishes his speed, and lessens the free and quick action so essential to the animal's safety and that of his driver.

Brethren of the press, let us emancipate the horse from the British check rein.—*Buffalo Dem.*

REMARKS.—So say we. It is an instrument of torture. How would a man wheel a load up hill, or even on level ground, with a strap round his forehead and tied down under his heels! In drawing a load, the horse needs to throw the weight of his body forward, and in dropping the head it brings a considerable portion of his weight on a line with the load behind him, if he is loaded properly,—and then he is drawing his load at a longer angle than he otherwise would.

#### THE HABITS OF THE EARTH-WORM.

Being somewhat confined to the house, I shall endeavor to give an account of a well known animal. Nature exhibits wonders that surpass credulity, and yet many marvellous things are believed which are totally unfounded in fact. Among the rest, it is said of the subject of my discourse, (popularly termed the Earth-Worm,) that if it be cut in pieces, each piece will turn out a complete worm. This is not true any more than to say that the claw of a lobster, taken off, will produce another lobster. The lobster, up to a certain age, will indeed put forth another claw, and the excised claw will, for a long time, exhibit muscular irritability. Human beings, if history lies not, exhibit in their members the same muscular irritability after death, as Charlotte Corday was said to blush and frown when her head was in the hand of the executioner, who slapped the face. If a worm be cut through, in a particular part of his body, neither part can be made to survive; but if the tail part, for a considerable length, be cut off, that will exhibit muscular irritability for a long time, but ultimately perishes, while the head part will have its wound healed, and seems to get on very well without the other part. But, still, many things can be related of worms sufficiently wonderful, and we shall endeavor to prove that he has really a high organization. In fact, he is the most thorough ventilator known in nature, and requires constant supplies of food, water, and, above all, fresh air. We will relate how we became familiar with the habits of worms, so that some curious investigator may pursue these researches, and verify or disprove our conjectures. Being fond of fishing, and on some days being able to obtain any amount of worms, while on an emergency we often failed to obtain a sufficient supply, and being advised by old fishermen to put up a large supply of worms in meal,

as they said, to purge them of the grit in their bodies, rendering them more palatable to the fish, we began to speculate on the subject. We concluded that they only swallowed grit on the principle, that a hungry boy would swallow cherry and grape stones, not that he liked them, but was unwilling to take time to separate pulp from seed, and so the worm, if he could get at meal or flesh unmixed with grit, would do so. So we obtained a box, pierced the bottom with holes, so small that the worms could not escape, but that water could drain out, filled up the box with a kind of sandy clay, embedded a brick on top of the clay, put in a handful of worms and kept them supplied with meal, blood or flesh sprinkled on top of the clay, and put the whole in a place secure from all kinds of animals, keeping a good supply of water in the box. The worms soon seemed at home in their new domicile, and honeycombed the clay soon with their galleries. The rapid disappearance of their food testified to their appetites, and they evidently used a great deal of water. They soon became too much our pets to think of devoting them to fish, and the following observations we made on their habits. Whether the British worm is like our earth worm, we know not. We have never seen them accurately delineated in print, and we are such an indifferent draftsman, that we cannot begin to draw one accurately.

Being a very poor naturalist, we cannot describe fully the parts of such delicate organs, as stomach, spiracles, organs of generation, ovaries, &c. We have often seen worms in such close contact, that we have concluded that impregnation takes place by a kind of pressing of the organs of generation lying in a sack under the stomach of the worm, and the semen of the male is thus ejected upon the ovaries of the female, mouth to mouth. However this matter takes place, the mother worm incorporates a jelly-like substance with earth, and in this deposits the spawn which comes out alive. So abundant are these spawn in some places, that hogs will eat the earth, and probably that is the kind of earth which certain tribes of savages are said to devour. The young worms soon form innumerable galleries in this earth, almost invisible to the naked eye, feeding upon the jelly, until large enough to provide for themselves. Each worm has a system of galleries for ventilation, and when near the surface of the earth, probably to avoid the effects of evaporation, they hide under a stone, brick, log, or any thing else partially embedded in the ground, with several galleries running outside of them to the air. How far they extend we know not, probably to running water, as we have seen worms thrown out near the bottom of a deep well. The walls of the galleries are cemented with a kind of glue from their bodies, so as to be air-tight, but not water tight. They are not exactly cylindrical, but are full of smooth cavities, so that the worm can fill them by his swelling out his body, and thus pull himself along by muscular power. No one can form an idea of the swiftness of a worm, under ground, by seeing him crawl on the earth, for he has not such cavities on the surface, as in his galleries, to fill up with his body and thus afford him a purchase by which to pull himself along. When he requires ventilation, he first rises to the surface of the earth to see that all his

galleries are clear, and then commences to pump air into the cavities, as he fits the cavity precisely by shortening and enlarging his body, he pushes out the foul air before him, and then converting each end of his body alternately into a piston and piston rod, by proper motion, he can send the air along the gallery in any direction that he pleases. He then descends, drawing the air along with him. Thus his gallery has constantly a supply of fresh air drawn into it, and the foul air pumped out. In some rivers in Virginia, there is a fish which never rises from the bottom, and unless the bait is kept on it, the fish will never bite. When the fish is caught, if his stomach be opened, fresh worms will be found in it, which shows that they get a plentiful supply at the bottom of the stream. Yet a worm cannot live long under water. Neither can an otter, but both can feed in it. The worm gets under some log at the bottom of the stream, running a gallery to the places haunted by the fish to feed, perhaps, on their spawn and excrements, or dead fish; then he constructs another to the bank, and thence to the air. He has a kind of cell under the log air tight, and upon the principle of a diving-bell, he pumps air into the cell under the log from the aperture in the bank, and thus furnishes himself with a supply of air; when he forages upon the fish ground and feeds, he retires to his cell to get a fresh supply of air; no doubt when seeking his food, under water, the fish catches him.—*South'n Planter.*

*For the New England Farmer.*

#### NOTES FROM MAINE.

**THE WEATHER.**—It is really interesting to see from the notes on weather in the different agricultural journals, that while in one State they are suffering for rain, in a bordering State it will be the reverse of this. But here, in Maine, we do not have to go even to another New England State to find such a diversity, because among our hills one county will be parched with the "balmy breezes," and an adjoining county will be flooded with continual rain; though but little detriment, upon the whole, accrues from either extreme.

In this part of the State (Franklin County) the month of August has presented, almost uninterruptedly, the best of weather for haying—and this is the chief haying month, though there is haying going on all through the month of July. It has become quite dry, so much so that late crops will be injured somewhat, as well as potatoes particularly; yet others, such as corn, &c., will be benefited rather than otherwise, by hurrying them along.

From April to the middle of July, it was truthfully called a wet and cold season; not that there were severe and long rain storms, but frequent ones, just enough to keep it wet. The season has been a marked one for cool nights. There have been but few too warm to enable us to obtain good, refreshing sleep under a respectable amount of bed-clothes, in properly ventilated rooms of suitable size for sleeping in.

**STOCK SALES.**—August brings the stock buyers of beef along, and they continue scouring through every nook and corner, as long as any cattle fit for beef are to be found; which usually extends

to December and January; thus bringing a market to each farmer's door, however isolated he may seem to be among the hills. The speculators in stock, that is, those who buy low, for cash, or take them for debts, and sell on time at a large advance of prices, are busy now at their sure harvests. Beef and young stock are going at a low figure; not near paying for their winter's keep.

**FROSTS.**—For three years, with the present one, that unwelcome visitor, frost, has visited the county both late in Spring, cutting down and destroying much, and early in the Fall. There was a frost August 20th, and another September 2d, doing considerable damage in low places to corn, potatoes and vines. There was a frost June 18th, cutting down squash-vines, and the like, and in some places marking corn.

**GRAIN APHIS.**—Innumerable numbers of these insects (new in this county, to any extent,) are preying upon the cereal grains. They appear in three classes or kinds—if that phrase is admissible—that is, one class of large brown ones; one medium sized, brown, and long winged; and one a grass green—the smallest. They are injuring some fields of grain materially. The description of them in any one place, in any of the agricultural papers, applies so nearly, that none need be given here.

**THE HAY CROP.**—Much has been said and written about the abundant hay crop to be gathered this season. It is better than last year, but not what many anticipated. Many of the old fields have not yet recovered, so as to yield as well as before 1860, nor will they till plowed and seeded; and probably there has not been a year, for quite a series of years, that so much new seeded land failed "to catch" as in 1860. These drawbacks cut down the sum total of hay somewhat more than was expected; yet it is quite a good crop upon the whole. Some farms cut two and even three times as much as last year, and others not so much. These are the extremes, of course.

**SHINGLING.**—Judge French, in speaking of his shingles of clean rift shaved pine, in his "Letter from the Homestead," says the roof needed repairing after only about fifteen years' use. Now they have not lasted half as long as good shaved pine shingles do with us. Why is this? Does the tarred paper have a bad effect upon the roof by stopping the circulation of air so that the shingles do not dry on the under side, or were they shaved so thin and laid to the weather so much that they could not be expected to last long? How is this, Judge? O. W. TRUE.

*Elm Tree Farm, Sept., 1861.*

**COMPOSTS.**—Compost materials may be gathered at this season in profusion, and at small expense. Muck, weeds, brakes, loam, refuse straw, and, indeed, every variety of material that is requisite to furnish a healthful and grateful food for plants, and a salutary strengthener of the soil. This is a department of the farming art to which sufficient attention has not as yet been given by our farmers. As he feeds his soil, so will his crops abound, and feed him.

*For the New England Farmer.*

**"BEWARE OF DOGS."--St. Paul.**

Such was St. Paul's admonition, and it is believed that the same caution is applicable in our time.

I have noticed with peculiar satisfaction, Mr. Editor, the remarks of your several correspondents on the canine race. For myself, I have never seen good reason why one man should be allowed to keep a dog to the injury or annoyance of his neighbor, to range through his neighbor's fields to the injury or inconvenience of that neighbor. Why should an unruly dog run at large any more than a bear or tiger? Why should not all animals be confined within the limits of their owner's enclosures?

Your correspondent, "J. C. D.," says, "I would not be understood to justify the keeping of ill-bred, ill-fed, and uncared for curs." "J. C. D." ought to know that a large majority of dogs in towns and cities are of this class. A well trained dog will keep at home, and not leave his master's grounds. Such an animal will injure no one. It is dogs that are permitted to roam abroad of which we complain. Every man, who wants a dog, should know the importance of keeping that dog at home. Why our city should, for the trifling sum of two dollars, permit a man to keep a dog to range the streets, bite men, women and children, or whatever falls within his reach, has ever been inexplicable to me. In the country the range for dogs is still more extended, and they have the privilege of doing more harm.

We hear of wonderful feats of dogs that have found lost children, lost cattle, saved grown people and children from being drowned. Suppose one dog out of a million to have performed such feats. What is that to the immense injury that the race may have done? How many persons have been bitten by mad dogs, and have suffered the most excruciating deaths! Instead of two dollars being the tax for keeping a dog, the fee should be two hundred dollars, and the owner put under bonds to make good all damages, and pay a heavy fine, if the dog be found at large, unaccompanied by his master.

A well educated dog or cat may be desirable for some families; but let them be kept at home, and not allowed to roam about. I repeat it, that a dog ranging through farms, villages or cities, is a great nuisance, which should be abated by the action of our Legislature at its first session.

*Boston, Sept. 5, 1861.*

DELTA.

**DISAPPOINTMENT IS DISCIPLINE.**

"Well, all disappointment is discipline; and received in a right spirit, it may prepare us for better things elsewhere. It has been said that heaven is a place for those who failed on earth. The greatest hero is perhaps the man who does his very best, and signally fails, and still is not embittered by the failure. And looking at the fashion in which an unseen Power permits wealth and rank and influence to go sometimes in this world, we are possibly justified in concluding that in His judgment the prizes of this Vanity Fair are held as of no great account. A life here, in

which you fail of every end you seek, yet which disciplines you for a better, is assuredly not a failure."

We copy the above from among the striking thoughts which occur on almost every page of those attractive and instructive books, "*The Recreations of a Country Parson.*" This single thought, that "all disappointment is discipline," may cheer on many a weary pilgrim in his tedious pathway to the grave,—and through the dim vista, show him a better life, unclouded by the fears and sufferings that surround him here.

**EXTRACTS AND REPLIES.**

**PIGS IN CLOVER.**

I have a pen of pigs some four months old, which I am feeding for slaughtering this fall, and wish to inquire which will be the better way—to allow them the privilege of running in a fine fresh field of clover of about an acre, and feeding them there, or confining them closely in the sty? In other words, will the advantage which they will have of eating the clover counterbalance the lack of manure which they would manufacture in the sty? I might state, by the way, that the clover-plot is a place I am desirous of enriching, designing it for roots, another season.

W. J. PETTEE.

*Salisbury, Ct., Sept. 5, 1861.*

REMARKS.—We have no doubt that you will get more pork and more real value in manure, by keeping the pigs in a commodious pen, where they can come to the ground or retire to a dry bed at will. Cut and feed to them the fresh clover twice or three times each day; give them a little salt as often as they will eat it, and as much nutritious food as they will take with a good appetite, and they will afford you the means of enriching the clover field, provided you keep them supplied with muck and suitable litter to receive all their waste.

**RACCOONS.**

Being a reader of the *Farmer*, and having noticed that through the medium of its valuable columns you are willing to impart useful knowledge to all its perusers, I would thank you, or some correspondent, to inform me of the best method of keeping raccoons out of my corn-fields without keeping a dog, and paying a tax on him, to hunt them? They are breaking down and destroying from half a bushel to a bushel of ears of corn every night.

ADIN WHITAKER.

*Wendell, Sept. 4, 1861.*

REMARKS.—We used to enjoy rare sport in taking raccoons of a moonlight night, when the 'coons had become fat. No better haunch ever graced the table than that of a young, fat raccoon. But we had a good dog in the neighborhood which was trained for the purpose of hunting 'coons. We do not know any mode of trapping them—perhaps some of our correspondents may aid you.

## SPRING AND WINTER WHEAT.

The question is asked by some Massachusetts farmers who are getting interested in the raising of wheat, whether spring wheat can be used for fall sowing.

What is the difference between spring and winter wheat?

Please answer in next week's *Farmer*?

Sept. 4, 1861.

L. B.

REMARKS.—There is probably no difference between spring and winter wheat, except what comes by habit. It would not be well to sow spring wheat in the fall, because it has acquired, by some means, the habit of growing best in the fall. And so of fall wheat and of rye.

## QUESTIONS ABOUT THE BUNCE STRAWBERRY.

Being somewhat interested in the culture of the strawberry, I wish to ask a few questions concerning the Bunce strawberry, and the great crop of it grown by the Messrs. Bunce, and should feel obliged if they would answer them.

1. How was the ground prepared—had it been trenched or subsoiled, or was it simply plowed?
2. How much manure was applied?
3. What distance apart were the plants set?
4. What was the mode of cultivation? Were the runners cut, or allowed to run into a thick mass?

I suppose that some of your readers have before this time tried the *Triumph de Gand* strawberry, and should be pleased to have them give their opinion of its merits.

## WARTS ON HORSES.

One of your readers wants a remedy for warts on horses. A strong solution of alum applied daily, will cure warts on cattle, why not on horses? but if it should fail, muriatic acid will not; apply perhaps a drop at a time, put it on with a pointed stick being careful not to get any of it either upon the horse's flesh, or your own, and keep it out of the way of children; a few applications it will be sufficient. If carefully used it is a perfectly safe and effectual remedy. TYRO.

Worcester Co., Sept., 1861.

## DISTEMPER AMONG TURKEYS—GERMAN TURNIPS.

Mr. Wilcox inquires if any of your readers have been troubled with a distemper among their turkeys. I have not, but have had them die in the same way as he describes, and have found that it is caused by a louse on top of the head which eats in so that is difficult to be found unless taken in season; but that may not be the case with his. The turkey's heads must be oiled.

One of your subscribers complains that he did not receive any of the German turnip seed of Mr. Coy. I sent stamps and received the seed, so it's no humbug. C. W. MARSH.

Holden, Sept. 9.

## SMART PULLETS.

I see you have kindly published my account of profit and loss in raising poultry, which I hope may be a benefit to all poultry raisers, as I believe what has been done, can be done again. I

now give you a rare case. I have four of this year's pullets that commenced laying about the 20th of July. One of them laid about one dozen eggs and then set, brought out six chickens on the 29th of August, and all doing finely. The other three continue to lay—Shanghai breed, and smart at that.

JAMES BUFFINGTON.

Salem, Sept., 1861.

## THE KETCHUM MOWER OF 1861.

Can you, or any of your subscribers who have used the Ketchum Mower for 1861, inform me whether they work better than those of 1860? Whether they are less likely to clog, and whether the swing shoe enables the machine to mow closer on rough ground? If you, or any of your subscribers can answer these questions, you will confer a favor on a

SUBSCRIBER.

Thetford, Vt., Sept. 2, 1861.

REMARKS.—We have never seen the *Improved Ketchum Mower* in operation, or heard it described. If those who have used it will reply to "Subscriber," we will publish their answer.

## MR. COY VINDICATED.

I would like to say that I think Mr. William Orton's caution in regard to the Sweet German turnip seed is useless. I think his letter or the seed must have miscarried, for I sent a few stamps, and received seed enough for nearly half an acre. I am very much pleased with them, and I would like to know if I can set them in the spring and get seed in season for sowing; if not, I shall have to send for more seed. I would rather raise four bushels of them than one of carrots.

New Worcester, Sept., 1861. H. T. GATES.

REMARKS.—See also the letter of Mr. Marsh in this column.

## ANIMAL LIFE IN THE OCEAN.

Dr. Wallich, who accompanied the Bull Dog as naturalist in the recent survey of the North Atlantic, for the proposed telegraph line, made a remarkable discovery. Nearly midway between the north of Ireland and Cape Farewell, soundings were obtained of twelve hundred and sixty fathoms. The sounding apparatus, which was of a very perfect description, brought to the surface a large mass of coarse muddy matter, no less than ninety-five per cent. of which consisted of the shelly remains of *Globigerina*, a genus of *Foraminifera*—thus testifying that the ocean floor at that locality must be paved by countless millions of these animals, some of which were alive. But more marvellous still, from this great depth, the sounding-line brought up starfish in full activity, radiant with beauty, which probably enjoyed life though subjected to the enormous pressure of a ton and a half on the square inch. This most interesting discovery shows that no limit of life can be drawn in the sea. It has been found that the air on the summit of Etna, twelve thousand feet above the sea level, abounds with *Diatomaceæ*; and now the ocean, at a depth of upward of seven thousand feet, and about five hundred miles from Greenland, is found to teem with animals which have hitherto been supposed capable of living only in much shallower water.

### HOW TO CLEAR LAND OF BRUSH.

Our pastures are encroached upon by shrubs and trees of inferior growth, making nestling places for weeds, and shading much land which otherwise would produce grass. We prefer to use the brush hook, and cut up everything, to lay the dry brush over the stubs and burn it. If sheep are kept on the lot afterwards, they will feed down the young growth which starts from the roots, for the most part, and a scythe will keep under the remainder. A correspondent of the *Homestead* gives his views as follows:

"This is often a problem of much importance, and the solution of it is attended in some sections with much difficulty and expense. After cutting and burning the brush piled up in heaps, many think the best and perhaps the only mode of extermination is plowing and thorough tillage. This is an effectual remedy, and where circumstances will admit, a good one. But there are many fields that cannot be treated in this manner. Either the occupant cannot sustain the requisite expense, or impediments to plowing stand in the way.

"In many sections there are large quantities of land now comparatively useless, that would, if the brush is destroyed, be valuable for grazing. Last year I tried burning the land over without cutting the brush, and have been so well pleased with the result that I wish to recommend the practice to others, and also draw out the experience and opinions of others. Now is the time, as soon as the ground is dry enough. The fire runs best in the middle of the day. From a single experiment I have come to the conclusion that fire running over the land a few consecutive years will run out the brush, and the land be benefited by the operation, especially if a top-dressing of gypsum or something else be applied afterwards."—*Journal of Agriculture.*

### PRODUCT OF MILCH COWS.

A dairyman somewhat noted for producing a large amount of cheese annually from his dairy, said to us in a recent conversation, that one of the secrets of his success in this respect was the careful manner in which he treated his herd. His cows were driven to the stables leisurely. No dogs were used for the purpose of driving the cows, and persons in his employ who were caught striking or in any way abusing a cow, were discharged on the instant. Let the cows have an abundance of food, and take their time in coming to the barn, especially in hot weather, milk clean and regularly, and from fifty to a hundred pounds more cheese can be made per cow, during the season, than when the animals are dogged out of the field night and morning, or kicked and pounded and frightened for every little mistake they are supposed to make. Some people make a great mistake in overstocking, and too little attention is given to the treatment of stock, summer and winter. The dairyman should consider a moment whether 30 cows yielding 600 pounds of cheese per cow, are not as profitable as 40 cows whose annual produce is 400 pounds per cow; and yet hundreds of dairymen seldom if ever think of this matter, but go on after the old manner, trusting to luck for an increase in dairy products over that of former years.—*Dairy Farmer.*

**ROOTS.**—All roots should be housed before the weather becomes severely cold. Cabbages, turnips, beets, onions, carrots and parsnips will need looking after soon; but the first two may be allowed to remain out as long as there is no danger of their being frozen in.

## YOUTH'S DEPARTMENT.

### THE UNLUCKY THROW.

When I was a boy, like most other boys, I often did idle and foolish things. One day, for instance, as I was walking up street, I saw a broken china tea-cup in the road. Picking it up, instead of letting it alone, as I ought to have done, I began to toss it into the air. This I did several times, trying to throw it higher with each new effort.

At last, thinking to toss it as high as the cornices of the houses, I threw it with great energy. Alas for me! My arm struck my side, and the unlucky piece of china went crashing through the window of a dwelling-house.

Without thinking of my *duty*, I took counsel of my *fears* only, and ran home as fast as my feet could carry me. Nor did I either pause or look back until I turned a corner.

Shortly after this misfortune the son of the man whose window I had broken came home from play. Seeing the window broken, he stood outside, with his hands in his pockets, looking at it. A man passing said, "Your father will think you broke that window, my little fellow, and he'll tickle your back with a raw hide."

"No he won't," said the boy calmly, "for I shall tell him I didn't do it."

"You may tell him so, but will he believe you?" rejoined the man.

"He always believes what I say!"

That was nobly said, and it was just so. That boy wore a diamond called truth on his heart, and his father knew that he could safely trust him.

Where was I? Well, I sneaked home, feeling that I had done a mean act in not going right to the owner of the house and confessing my misfortune.

For several days I carried my secret with me. It was like wearing a belt of burrs round my waist. It pained me badly. I was in torments, too, lest somebody had seen me and should, after all, tell my father.

At last my secret was dragged out. A person who knew me had seen me break the window and had told the owner of the house about me. That gentleman knew my father, and the first time he saw him told him what I had done. My father paid for setting a new square of glass, and on his return home called me to his side.

His face wore a stern expression. I trembled and blushed like a culprit, for I guessed he had found me out. Looking right in my eye, he said: "Peter, did you break Mr. Comerford's window a few days ago?"

"Yes, sir," I replied, holding down my head.

"What did you do that for?" asked my father, with less sternness in his manner.

The worst of my load was now gone. That secret mill-stone which had been crushing me was now rolled off, and I told my father all about the affair.

"Peter, my boy," said my father, after hearing my story, "I am glad you did not deny your guilt. I regret you did not play the man when your misfortune happened, by going to Mr. Comerford at once. But I honor you for frankly and truthfully answering my question. I have paid for the window. Go. Be more careful hereafter about tossing old china in the street, and, above all, if you ever should be unlucky or foolish enough to meet with a similar accident don't run away like a sneak. Act the part of a thoroughly honest boy, and own your fault at once."

I promised I would, and I tried to keep my promise. The advice my father gave me I commend to you, hoping that you will remember that it is honest, noble, and manly to confess a fault, while to conceal is to act the part of a coward.—*Sunday School Advocate.*

#### A RUINED CHARACTER.

Not long since, in a certain neighborhood, a man was wandering in search of employment. He called at a respectable farmer's house, and told his errand.

"What is your name?" asked the man.

"Jonathan Gilman," was the reply.

"Jonathan Gilman, the same that lived near here when a boy?"

"The same, sir."

"I will not employ you then."

Poor Jonathan, surprised at such a reply, passed on to the next farmer's; but the same reply was given. He soon came in sight of an old school-house.

"Ah!" said he, "I understand it now. I was a school-boy there once, but what kind of a school-boy? Lazy and disobedient. Although I am now in a measure reformed, they all think me the same kind of a man as I was a boy. O, that I had done my duty when at school—then again could I dwell pleasantly in the land of my birth."

School-boys and school-girls, please remember that your school-mates will be likely to look upon you in manhood or womanhood as they did in youth. Then, in your schooldays, prepare for noble men and noble women.—*The Gem.*

### LADIES' DEPARTMENT.

#### I CAN HARDLY KEEP MY BOY HOME EVENINGS.

What will he do then when he is older? queried we, as we heard a father speak thus of his little son, only seven years old. *Why* can he not keep him at home? Ay! here is the difficulty, he is a very restless, active boy, and cannot sit still five minutes unless his mind is diverted with some childish amusement. He is very fond of pictures, but his mother complains that he is too much trouble when attending to them; he wants the table or wall covered with them, or if drawing them, wants too much of her attention to encourage him.

Poor boy, his mind is filled with none of the perplexing cares and plans that employ the mother's, but is in search of something to occupy it.

Is it wise, mothers, to discourage the little

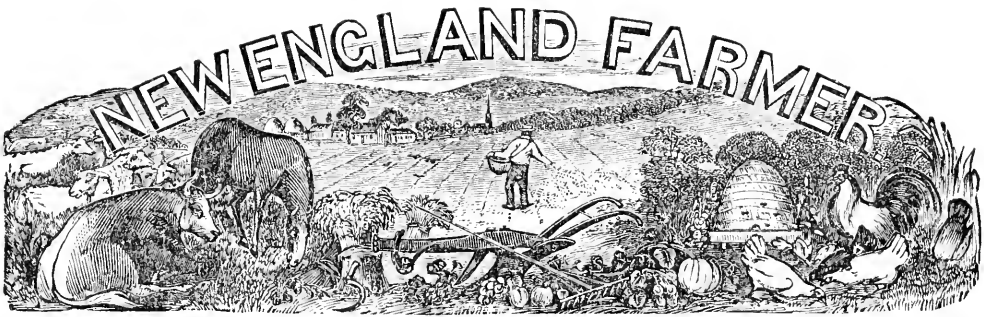
ones from attending to innocent, fireside amusements, because that to encourage them requires time and attention? What mother would not rather spend half an hour every evening in making drawings or some other amusement agreeable and attractive to her little boy, thereby cultivating a love of home and home pleasures, than in after years to find him seeking entertainment and companions abroad, most likely among the dissolute and degraded, because he has no love of home, and can find no enjoyment there? Do not many mothers err in this matter, and afterwards wonder why they cannot keep their children at home?—*Mother's Journal.*

#### THE POWER OF LOVE.

To the hearts of all us women, love is a necessity; and a man who understands that, has a power in his hands. Many have neglected it and many have grossly misused it. Where and how your husbands have failed, it is not for me to decide; one thing only I will say to you. My late husband told me one day of a King of Spain, on whose foot a burning cinder fell out of the fire. He would have thrown it off, but it occurred to him that it was not seemly for a king to do so; he therefore called his minister. The minister said that it was not his business, and gave the command to one of the pages; the page was of noble birth, and therefore called a chamberlain; but before he could come the cinder had burnt the shoe through to the foot. Dear lady, when a grief, like a red-hot cinder, falls upon your heart, do not stop, thinking whose proper duty it is to remove it, otherwise your heart may be burnt through and through. Seize it boldly, with our Lord's help, and throw it away, even though finger and thumb should be a little burnt; that hurt will soon heal.—*Matrimonial Quarrels.*

PIN MONEY.—The origin of "pin money" was as follows: Toward the close of the fifteenth century, an epoch that makes a transition style in the dress of ladies, pins were looked upon with great favor as New Years' gifts. They displaced the old wooden skewer, previously used to fasten ladies' dresses, which no effort of skill, no bur-nishing or embellishment, could convert into a slightly appendage. Pins, in that simple age of the world, were luxuries of high price, and the gift was frequently compounded for in money, an allowance that became so necessary to the wants of ladies of quality, that it resolved itself at last into a regular stipend, very properly called "pin money."—*N. Y. Ledger.*

UNMARRIED LADIES.—The single state is no diminution of the beauties and the utilities of the female character; on the contrary, our present life would lose many of the comforts, and much, likewise, of what is absolutely essential to the well-being of every part of society, and even of the private home, without the unmarried female. The single woman is as important an element of social and private happiness as the married woman. The utilities of each are different; but it is vulgar nonsense, unworthy of manly feeling, and discreditable to every just one, to depreciate the unmarried condition.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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OFFICE...34 MERCHANTS' ROW.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE  
HENRY F. FRENCH, } EDITORS.

SUGGESTED BY NOVEMBER.

"'Tis easy to resign a toilsome place,  
But not to manage leisure with a grace;  
Absence of occupation is not rest,  
A mind quite vacant is a mind distressed.  
The veteran steed, his task excused at length,  
In kind compassion of his failing strength,  
And turned into the park or mead to graze,  
Exempt from future service all his days,  
There feels a pleasure, perfect in its kind,  
Ranges at liberty, and snuffs the wind;  
But when his lord would quit the busy road,  
To taste a joy like that he has bestowed,  
He proves, less happy than his favored brutes,  
A life of ease a difficult pursuit."



NOVEMBER has been denominated "the month of suicides." It comes to us shrouded in gloom, and borne on a car of storm—cold, dreary and inhospitable in aspect, but not unaccompanied by many enjoyments and pleasures peculiar to itself. The poets have generally, oblivi-

ous of the fact that some of the most enchanting days of autumn are found in this month, depicted it as cheerless, gloomy, and depressing. Thus, one says:—

"'Tis the year's eventide.  
The mind, like one that sighs in pain,  
O'er joys that ne'er will bloom again,

Moans on the far hill side.  
The air breathes chill and free :  
A spirit in soft music calls  
From Autumn's gray and moss-clad halls,  
And round her withered trees,  
Leaves that the light wind bears  
To Earth's cold bosom with a sigh,  
Are types of our mortality,  
And of our fading years."

BRAINARD speaks of it in a more pathetic, if not more gloomy strain :

"The dead leaves strew the forest walk,  
And withered are the pale wild flowers ;  
The frost hangs blackening on the stalk,  
The dew-drops fall in frozen showers ;  
Gone are the spring's green sporting bowers,  
Gone summer's rich and mantling vines,  
And Autumn, with her yellow hours,  
On hill and plain no longer shines."

We have generally, in the month of November, an interval of fine weather known as the "Indian Summer," which comes to us with all the golden and winning attractions that accompany the finely pencilled and dream-like glories of September. It is a beautiful and fairy-like season,—the tops of the lofty trees, which have worn their green robes with so much humility through the summer—like modest merit obscured by poverty—glowing in all the colors of the rainbow, and fading off into distance,—the oblique rays of the sun gleaming through the many-hued foliage, suggesting, at times, the idea of a forest aglow with fire, or of

"Garments rolled in blood,"—

the deep, yet mellow azure of the distant uplands, over which there is suspended a sky that mocks the brightest conceptions of the poet, and turns to ridicule, in comparison, the richest coloring of a Claude,—the deepening blue of the mountain-framed lake, and the silvery radiance of the stream, flowing like molten silver, but with a merry song—present a picture of quiet and subdued loveliness, that comes over the spirit with a sort of dreamy beauty, inspiring feelings akin to

those which one feels while listening to the sound of an organ in some grand old cathedral, with the purple glories of a summer twilight around him. Artists have frequently made attempts to represent the different phases of the *Indian Summer* on canvass, but as yet their attempts have been attended with but partial success. Neither the colors of the painter nor the descriptions of the poet can do justice to it, or place it adequately before the vision of one who has never beheld its glories. The air, too, during its prevalence, is balmy, still and voluptuous, almost beyond the breath of June, and one almost feels disposed to regret, while enjoying it, that the economy of nature requires a change, and that such a halcyon period of quietude and beauty must give place even to the wanton and wild display of the flower-enamelled June herself.

But November is, after all, by many considered a gloomy month, and even the most elastic and cheerful minds are sometimes tinged with sadness by its clouds and general aspect of decay. Hood, whose pictures are generally true to nature, represents it in a strong light :

"No sun—no moon—  
 No morn—no noon—  
 No dawn—no dark—no proper time of day—  
 No sky—no earthly view—  
 No distance looking blue—  
 No road—no street—no 'tother side the way'—  
 No end to any 'row'—  
 No indications where the crescents go—  
 No top to any steeple—  
 No recognitions of familiar people—  
 No courtesies for showing 'em—  
 No knowing 'em."

But if, as we hopefully trust is the case, we have been "blessed in our basket and our store,"—if our granaries are well supplied with the legitimate fruits of honest industry, we can look out upon the dimly-lighted and dismantled landscape, and the denuded fields begemmed with the "sere and yellow leaf," and rejoice over the home comforts our labors have secured to us, and which impart, in the possession and enjoyment, a new sanctity to the domestic altar, and new bliss to the delights of HOME. Let us, however, remember that there are those who tremble at the voice of the "storm-king," and who have not the wherewithal to protect them from his windy and piercing wrath. The farmer should be charitable, and while he reprimands idleness and vice, both in precept and practice, he should ever be ready to succor and assist the needy. Sweeter will be the relish of enjoyment for the bread given in secret.

**SALT FOR SWINE.**—A correspondent of the *Annalen der Landwirthschaft* states some interesting experiments to test the use of salt in fattening swine. He selected two pairs of barrow hogs weighing 200 lbs. apiece. One pair received

with their daily allowance of food two ounces of salt; the other pair similarly fed, none. In the course of a week it was easily seen that the salted pair had a much stronger appetite than the others, and after a fortnight the salt was increased to two ounces apiece. After four months the weight of the salted hogs was 350 lbs. apiece, while that of the unsalted, five weeks later, had reached only 300 lbs. This experiment was repeated with almost precisely the same results. The author feeds young pigs, according to their age, a quarter to one ounce daily, breeding sows very little during pregnancy, and during the heat of summer withholds it in a great degree from all, as it induces thirst and liability to disease.

#### BACTRIAN CAMELS AS BEASTS OF BURDEN.

The Bactrian camels imported here from the Amoor river, about two years since, have shown and are proving themselves serviceable as beasts of burden. It had been so often reiterated that the double-humped camel could not be packed, and would not carry freight, that the timid here, as elsewhere, doubted their adaptability to highway transportation. Hence Mr. Frisius, to whom the Siberian quadrupeds were consigned, failed for some months in getting an offer for them approximating to their true value. Finally, Mr. Julius Bandmann purchased the lot, ten in number, being convinced from observation that they could be advantageously employed as beasts of burden in California.

While in the possession of their proprietor, the camels have been constantly packed with immense loads. The ordinary pack saddle fits in finely between the callous protuberances, and on this, barrels, bags, packages and miscellaneous articles are bound, the girths about the neck and under the belly tightly drawn, and the animal thus laden, walks or paces off as easily as the best trained mule. Yesterday, by way of experiment, one of the larger camels left the yard of Mr. M'Donald with bags of sand weighing at least six hundred and fifty pounds, and with this immense load, footed it over the precipitous and deep sand hills of the Presidio Plaza.

On their return from the day's pasturage, the camels are driven into the inclosure at M'Donald's, where at sunset they lie down to sleep all in a heap. They rise about four o'clock, seek the sun and shelter when the winds arise. A tub of fresh water always stands in the yard, but it is seldom visited. When well, a camel goes to the tub but once in ten days, and then quenches his thirst with two buckets of water.

It is believed that for transportation of goods between points in the interior counties, over the Sierras, or through the Carson Valley region, the Asiatic camel would be found preferable to the mule. The experiments here tried by Mr. Bandmann demonstrate that they require less food and water, no care, can bear heavier burdens, and travel faster, and more than all, are neither susceptible to disease, nor sudden fits of frenzied wrath. Traders in the country, and particularly merchants forwarding extensive consignments over the mountains, would do well to try the experiment of introducing these animals to the trials of the Sierra Nevadas.—*Alta California*.



For the New England Farmer.

### NOTES BY THE WAY.

MESSEES. EDITORS:—The season is now past, and the harvest nearly ended, and the farmer can sit down and "count the cost," and know how the debt and credit columns stand, in an agricultural point of view. I think the Green Mountain farmers who have made a wise and prudent use of the capacity and means of which they are possessed, will be well compensated for their labors the past season. The vegetable growth has been heavy, and the crops well secured. The hay crop, particularly in north-eastern Vermont, was very bountiful in quantity, and good in quality; the result in part of the fine covering of snow—the poor man's manure—favored our Green Hills the last winter, and the heavy rains, and freshets which followed in the spring.

The grain harvest was very good, notwithstanding the appearance and attacks of the fly or *louse*, which undoubtedly did considerable injury in sapping the juices which otherwise would have entered the grain or seed. Oats and wheat were most infested by this insect. Of the less cultivated grains, as rye, barley, and buck and India wheat, the season has been favorable, and the yield good. Indian corn is particularly heavy in growth—the kernel full and hard—the result of the fine September weather with which we have been favored. To this date, (October 9th,) no frosts have occurred to kill even the garden vegetables or vines. Potatoes, which now are being gathered in, are yielding well, though hardly so bountifully as last year. From 150 to 200 bushels to the acre of common potatoes, or Pink eyes, I think will be about an average yield.

So you may rest assured, Messrs. Editors, that in consideration of the bountiful harvests securing and secured, the late demand for wool, an article of export upon which many Vermont farmers to some extent depend, and the large supplies of beef still in the country, that the Green Mountain Boys will "still live," notwithstanding the cries of "War, and hard times," if but to assist in prosecuting the war, to save our government from an inglorious defeat, and *harder times* than we have as yet experienced.

A very fair test of the thrift and prosperity of our farming communities, may be witnessed in our County and Town Fairs. Wherever the mass of the people are doing and feeling well, the one, by the way, a very sure consequent of the other, the Agricultural and Industrial exhibitions of the place, if properly conducted, will be marked with success. Such has been the case, I am happy to say, in regard to the late fairs of Caledonia Co.

The first, that of the regular Agricultural Society of the county which was held at St. Johnsbury, September 17th and 18th, was well attended, especially on the second day, and the exhibition very good. In the number, as well as the quality of the cattle, quite an improvement was noticeable over some of its former shows. Many fine oxen were on the ground, and a good show of other cattle. The exhibition of horses was good—a number of fine specimens of that noble animal being exhibited. The blood was principally of the Morgan stock.

The show in the Floral department was hardly up to the standard of former years. The continued

demands by our volunteers upon the labors and efforts of the ladies, may have had its influence upon this department. They did well, however, and their interest and efforts are appreciated.

The "Caledonia County Farmers' Club" held its second annual Fair at Lyndon, October 2d. This is a new society, organized more particularly to accommodate the people of northern Caledonia, interested in Agricultural and Industrial exhibitions. The society awards diplomas, instead of cash premiums; the necessary funds to defray the expenses, which are consequently light, being raised by membership subscriptions. The thousand and one humbugs resorted to by many, if not most of our agricultural societies, in order to make them "self-supporting," are thereby avoided, and the people much better satisfied. Thus far it has been very successful in its exhibitions, and the interest manifested in its behalf is increasing.

The Fair the 2d inst. was a decided success. Nearly 800 cattle were on the ground, 650 of which were oxen. These oxen came upon the ground in town-teams, each attached to a large wagon, and accompanied by martial music—music fitting the times—thus forming a very interesting feature of the Fair. The Lyndon team numbered 104 yoke; Burke, 64; Kirby, 40, and nearly the same from Sutton, Wheelock and St. Johnsbury.

The other departments were well represented, especially that of vegetables, and the Ladies' or Floral Hall. The vegetables were of extra size, and a very large number of them on exhibition, speaking well for the farmers and gardeners of the county.

The Ladies' Hall was full to overflowing, so much so that it was impossible to show many of the articles to advantage. Many of the specimens of embroidery, needle-work and painting were truly meritorious, such as would do honor to more experienced fingers. Care as well as skill is demanded by the fine arts, a fact which our young friends should bear in mind.

The address was delivered by Hon. Thomas Bartlett, of Lyndon; his subject was, "The Dignity of Human Labor." It was energetic, practical, and well received. Our agricultural addresses are of incalculable value, and I am glad to see that they are becoming more general. The number at the Fair was estimated at 5000, which bespeaks of its interest and success.

I. W. SANBORN.

### GYPSSUM.

If you can procure gypsum—plaster of Paris—sprinkle a small quantity every morning over your cattle stalls. It is a good absorbent of ammonia, and consequently tends not only to economize a most valuable element of vegetable nutrition, but to sweeten and purify the air. The generation of ammonia in stables, and other confined situations, is not unfrequently the cause of disease, and should be prevented. Copperas water sprinkled over the floors and surface of cattle-yards, has a still more sanitary effect. It is a powerful deodorant, and should be liberally used about out-buildings, especially in hot weather.

*For the New England Farmer.*

### MODERN DISCOVERIES.

In a late number of the *Farmer* I notice an enumeration of modern discoveries by Bayard Taylor, all within the last twenty-five years. Here are a few of the inventions and discoveries in the arts within the same period. About twenty-five years ago, I first saw a friction match; a little later, the next great, little thing, the steel pen. Who could do without them? Who stop to think that the world ever *did* do without them? Next notice that marvellous, beautiful and truly useful process of painting, discovered by the Frenchman, Daguerre; and then Prof. Morse's wonder of all wonders, which, in 1844, first set people wondering how he could convey intelligence instantly from one city to another, by means of an iron wire stretched between them; and the justly celebrated rotary planing machine, by Woodworth. The planer came before the telegraph, though; but it makes no difference what comes first in this sketch;—the multiplicity of stoves, hot air furnaces, and steam heating apparatus, &c., and agricultural implements. Well, volumes cannot contain their history, neither can I tell it.

Who knows how many thousands of mowers, reapers and threshing machines have been made and worn out, within a period of far less than twenty years? Nearly all wood working machines with which I am acquainted—and among my first recollections are those of a wood workshop—date their beginning not a quarter of a century back. The first show of sewing machines—which *was* a show—was in the Crystal Palace in 1853. Colt's revolvers, Sharpe's rifles, rifled cannon and iron ships were invented just in season, provided the rebels hadn't got them. And hear the thousands of discordant parlor reed instruments, harassing the ears of as many households. (The discord is, however, generally chargeable to the musician, instead of to the instrument.) And many, and various other inventions and improvements, useful ones—I am speaking of no other—which I cannot now think of, and all not twenty-five years old.

Well may Mr. Taylor, or any one else, exclaim, "What quarter of a century, since the form of the earth, and the boundaries of its land and waters are known, can exhibit such a list of achievements?"

W.

*Marlow, N. H., Sept., 1861.*

### NOVEL CURE FOR LOCKJAW.

A gentleman of high standing, on whose veracity we can depend, relates an extraordinary instance of a valuable mare of his recovered from confirmed tetanus, by having recourse to means we never heard of being adopted before. The mare had been docked. A few days after the operation was performed, symptoms of lockjaw presented themselves. The best advice was immediately obtained, every remedy used proved unavailing, and death appeared inevitable. An idea suggested itself to the lady of the house (who is famed for the kind and skillful way in which she dispenses medicines, especially to the poor of the surrounding neighborhood,) that a sudden severe shock might produce the effect of relaxing the nerves and muscles, now strung to the highest

pitch, in the poor suffering brute. A gun was loaded; the groom walked quietly to the mare's head, and discharged it close to her ear. The mare reared suddenly up, broke her halter, and fell backward; got up, shook herself, at once commenced eating, perfectly recovered, is now alive, and has bred two or three fine foals since.

*For the New England Farmer.*

### VIRGIL ON AGRICULTURE---No. 2.

Thy fields, propitious Pales, I rehearse;  
And sing thy pastures in no vulgar verse,  
Amphyrsian shepherd! the Lycean woods,  
Arcadia's flow'ry plains, and pleasing floods,  
All other themes, that careless minds in vaine,  
Are worn with use, unworthy me to write.

Virgil's third Georgic commences in the same manner as the first and second—with an invocation of the imaginary rural deity who was supposed to have control over the particular department of agriculture upon which he was about to write. In the first, he invokes Ceres, the goddess of agriculture, or of all kinds of grain, or cereals; in the second, Bacchus, the god of wine, and Pomona, the goddess of fruits; in the third, Pales, the goddess of shepherds, of flocks and herds.

From the last two lines of the above quotation, it seems that although Virgil was deeply learned in all the sciences which were known in his time, and in poetical genius was superior to any of his contemporaries, he could find no theme so worthy of his thought and pen, so fresh and ennobling, as the art of husbandry. If he was now on earth, and living in New England, we should, without doubt, often see articles from his pen in some of our agricultural papers—perhaps in the *Farmer*.

In this, his third poem, Virgil gives rules for the breeding and management of horses, oxen, sheep, goats and dogs; and interweaves several pleasant descriptions of a chariot race, of the battle of the bulls, of the power of love, and of the Scythian winter. In the latter part of the book or poem, he relates the diseases incident to cattle; and ends with the account of a fatal murrain that formerly raged among the Alps. His description of the noblest of all animals, the horse, is very spirited and truthful.

The colt that for a stallion is designed,  
By sure presages shows his generous kind;  
Of able body, sound of limb and wind,  
Upright he walks on pasterns firm and straight;  
His motions easy; prancing in his gait;  
The first to lead the way, to tempt the flood,  
To pass the bridge unknown, nor fear the trembling wood;  
Dauntless at empty noises; lofty necked;  
Sharp headed, barrel-bellied, broadly backed;  
Brawny his chest, and deep; his color gray;  
For beauty, dappled, or the brightest bay;  
Faint white and dun will scarce the rearing pay.  
The fiery courser, when he hears from far  
The sprightly trumpets, and the shouts of war,  
Pricks up his ears; and, trembling with delight,  
Shifts place, and paws, and hopes the promised fight.  
On his right shoulder his thick mane reclined,  
Ruffles at speed, and dances in the wind.  
His horny hoofs are jetted black and round;  
His chine is double; starting with a bound,  
He turns the turf, and shakes the solid ground.  
Fire from his eyes, clouds from his nostrils, flow:  
He bears his rider headlong on the foe.

His directions for the training of colts and steers are very similar to those which are now followed by individuals who are most successful in the art.

Soothe him with praise, and make him understand  
The loud applauses of his master's hand ;  
This from his weaning, let him well be taught ;  
And then betimes in a soft snaffle wrought,  
Before his tender joints with nerves are knit,  
Untried in arms, and trembling at the bit.

\* \* \* \* \*  
The calf, by nature and by genius made  
To turn the glebe, breed to the rural trade  
Set him betimes to school ; and let him be  
Instructed there in rules of husbandry,  
While yet his youth is flexible and green,  
Nor bad examples of the world has seen.  
Early begin the stubborn child to break ;  
For his soft neck, a supple collar make  
Of bending osiers ; and, (with time and care  
Inured that easy servitude to bear.)  
Thy flattering method on the youth pursue ;  
Joined with his school-fellows by two and two,  
Persuade them first to lead an empty wheel,  
That scarce the dust can raise, or they can feel :  
In length of time produce the laboring yoke,  
And shining shares, that make the furrow smoke.

His rules for the management of sheep and goats are quite lengthy and minute ; and are worthy the attention of those who are engaged in sheep-raising.

First, with assiduous care, from winter keep,  
Well foddered in the stalls, thy tender sheep ;  
Then spread with straw the bedding of thy fold,  
With fern beneath, to fend the bitter cold ;  
That free from gouts thou mayest preserve thy care,  
And clear from scabs, produced by freezing air.  
Next let thy goats officiously be nursed.  
And led to living streams, to quench their thirst,  
Feed them with winter-browse ; and for their lair,  
A cote, that opens to the south, prepare ;  
Where basking in the sunshine they may lie,  
And the short remnants of his heat enjoy.  
This during winter's drizzly reign be done,  
Till the new Ram receives the exalted sun :  
For hairy goats of equal profit are  
With woolly sheep, and ask an equal care.

\* \* \* \* \*  
But, when the western winds with vital power  
Call forth the tender grass and budding flower,  
Then, at the last, produce in open air  
Both flocks, and send them to their summer fare.

He does not disdain to notice the dog—that distinguished member of the canine race,—whose merits and demerits have been so freely discussed in the *Farmer* for a few months past. It would be really interesting to know his opinion of the dog law, and of its present effect upon the length of a sheep's life ; if he was of my mind, he would consider it to be infinitely small.

Nor, last, forget thy faithful dogs ; but feed  
With fattening whcy the mastiff's generous breed,  
And Spartan race, *who, for the fold's relief,*  
*Will prosecute with cries the nightly thief,*  
Repulse the prowling wolf, and hold at bay  
The mountain robbers rushing to the prey.  
With cries of hounds, thou mayest pursue the fear  
Of flying hares, and chase the fallow deer,  
Rouse from their desert dens the bristled rage  
Of boars, and beamy stags in coils engage.

For the subject of his fourth and last Georgic, Virgil has chosen the honey bee. He shows us what station is most proper for the bees, and when they begin to gather honey ; how to call them home when they swarm ; and how to part them when they are engaged in battle. From hence he takes occasion to mention their different kinds ; and after an excursion, relates their prudent and politic administration of affairs, and the several diseases that often rage in their hives, with the proper symptoms and remedies of each disease. He closes the poem by giving the history of an invention to restore them to existence again, supposing their whole breed were lost. This, of course, is a superstition of the ancients, but is worthy of a perusal.

First for thy bees a quiet station find,  
And lodge them under covert of the wind,  
(For winds, when homeward they return, will drive  
The loaded carriers from their evening hive.)  
Far from the cows' and goats' insulting crew,  
That trample down the flowers, and brush the dew.  
The painted lizard, and the birds of prey,  
Foes of the frugal kind, be far away—  
The titmouse, and the pecker's hungry brood,  
And Procne, with her bosom stained in blood ;  
These rob the trading citizens, and bear  
The trembling captives through the liquid air.  
And for their callow young a cruel feast prepare.  
But near a living stream their mansion place,  
Edged round with moss, and tufts of matted grass :  
And plant (the wind's impetuous rage to stop)  
Wild olive trees, or palms, before the busy shop.

\* \* \* \* \*  
Whether thou build the palace of thy bees  
With twisted osiers or with barks of trees,  
Make but a narrow mouth : for as the cold  
Congeals into a lump the liquid gold,  
So 'tis again dissolved by summer's heat ;  
And the sweet labors both extremes defeat.  
And therefore, not in vain, the industrious kind  
With dauby wax and flowers the chinks have lined.

As Virgil does not mention it, I presume they were not troubled, in those days, with patent hives, and the quarrels of rival inventors.

To keep bees from flying away to the woods, or elsewhere, when swarming, he says :

Then melfoil beat, and honeysuckles pound ;  
With these alluring savors strew the ground ;  
And mix with tinkling brass the cymbal's droning sound.

\* \* \* \* \*  
But when the swarms are eager of their play,  
And loath their empty hives, and idly stray,  
Restrain the wanton fugitives, and take  
A timely care to bring the truants back.  
The task is easy—but to clip the wings  
Of their high-flying arbitrary kings.  
At their command, the people swarm away :  
Confine the tyrant, and the slaves will stay.

Although modern inquisitiveness has made some important discoveries in the habits of bees, yet, with a few exceptions, his account of them is in accordance with nature, and our present knowledge.

Describe we next the nature of the bees,  
Bestowed by Jove for secret services,  
When by the tinkling sound of timbrels led,  
The king of heaven in Cretan caves they feed.  
Of all the race of animals, alone  
The bees have common cities of their own,  
And common sons ; beneath one law they live,  
And with one common stock their traffic drive,  
Each has a certain home, a several stall :  
All is the state's ; the State provides for all.  
Mindful of coming cold, they share the pain,  
And hoard, for winter's use, the summer's gain.  
Some o'er the public magazines preside ;  
And some are sent new forage to provide.  
These drudge in fields abroad ; and those at home  
Lay deep foundations for the labored comb,  
With dew, narcissus leaves, and clammy gum.  
To pitch the waxen flooring some contrive ;  
Some nurse the future nation of the hive ;  
Sweet honey some condense ; some purge the brood ;  
The rest, in cells apart, the liquid nectar shut :  
All with united force, combine to drive  
The lazy drones from the laborious hive :  
With envy stung, they view each other's deeds :  
With diligence the fragrant work proceeds.

\* \* \* \* \*  
Plains, meads, and orchards, all the day he plies ;  
The gleans of yellow thyme distend his thighs :  
He spoils the saffron flowers ; he sips the blues  
Of violets' wilding blooms, and willow dews.  
Their toil is common, common is their sleep ;  
They shake their wings when morn begins to peep ;  
Rush through the city-gates without delay ;  
Nor ends their work, but with declining day.

Thus Virgil nobly sings

—Of fields, and flocks, and trees,  
And of the waxen work of laboring bees ;

and, although the subject which he chose is a very old one, yet he makes it interesting ; and

looks upon the farmer's profession as a business of the greatest importance to mankind—as all truly noble and intelligent minds have ever regarded it since the creation of man.

*South Groton, 1861.*

S. L. WHITE.

#### FREQUENCY AND TIMES OF EATING.

Systematic recurrence is the order of nature, observed everywhere, alike in the timing of melodious sounds, the rhythmic beats of the heart, the measured respirations, the coming and going of light, the ocean's ebb and flow, seasonal revolutions, and planetary periodicities. The arrangement of regular times for meals harmonizes, therefore, with the universal policy of nature, and is, moreover, of the highest social convenience. Yet it is impossible to subject all to the same regulations of time. Dr. Combe remarks—

“The grand rule in fixing the number and periods of our meals, is to proportion them to the real wants of the system, as modified by age, sex, health and manner of life, and as indicated by the true returns of appetite.”

As the blood is usually most impoverished after the eight or ten hours' fast of the night, breakfast should be early. The stomach is usually vacated of its nutritive contents in about four hours after eating, but it may be an hour or two later before the blood begins to call upon it for a renewed supply. Persons engaged in active labor, in which bodily expenditure is rapid, of course require to eat more often than the indolent and sedentary; and children need nourishment oftener than adults. But too long abstinence, especially if the digestive power be not strong, sharpens the appetite, so that there arises danger of excessive eating.

Some avoid luncheon for fear of “spoiling the dinner,” whereas the thing they most need is to have it spoiled. Where the intervals between the meals are so long as to produce pressing hunger, something should be taken between them to stay the appetite and prevent over-eating. Late and hearty suppers are to be reprobated. Active digestion and sleep mutually disturb each other, as at night the exhalation of carbonic gas is slowest, and tissue changes most retarded, the overloaded blood is not relieved, and invades the repose of the brain, producing heavy, disordered dreams and nightmare, followed by headache and ill-humor in the morning.

Still there is the opposite extreme, of sitting up late, and going to bed wearied, hungry, and with an “indefinable sense of sinking,” followed by restless, unrefreshing sleep. A little light nourishment in such cases may prevent these unpleasant effects.

Custom has fixed the daily number of meals at from three to five; probably three is the smallest number that consists with well-sustained vigor of the system; four or five may be unobjectionable, the amount of nourishment taken each time being less. The essential thing is, regularity in each case, in order that the digestive glands may have time to prepare their secretions.

We should not take our meals when tired out, or much fatigued. The stomach participates with the other parts of the system in the exhaustion, and is thus unfitted for the performance of its proper and active duties. If there has been se-

vere exercise, either of body or mind, a short interval should be allowed for repose, or half an hour may be appropriated to any light occupation, such as dressing before sitting down to dinner.

It is questionable if much exercise before breakfast be generally proper. When we rise in the morning the system has passed the longest interval without food, and is at the lowest point of weakness from want of nourishment. It is well understood that the body is more susceptible to the morbid influence of colds, miasms and all noxious agencies, in the morning before eating, than at any other time, and those exposed to the open air before getting anything to eat, in aguish regions, are infinitely more liable to be effected than those who have been fortified by a comfortable breakfast. Cases may be quoted, undoubtedly, in which early exercise has produced no injurious results—perhaps even the contrary. Yet in most instances, especially if the constitution be not strong, breakfast should follow shortly after rising and dressing, before serious tasks are attempted. Dr. Combe justly observes, that “in boarding-schools for the young and growing, who require plenty of substance, and are often obliged to rise early, an early breakfast is almost an indispensable condition of health.”—*Household Science.*

*For the New England Farmer.*

#### MANURING WITH GREEN CROPS.

MR. EDITOR:—Your editorial article for September, contains the following paragraph:

“The great problem to be solved is, not how to produce large crops, but how to produce crops with the most profit; in other words, how to produce remunerating harvests without abstracting from the soil all the fertilizing particles which constitute its fertility and strength.”

Every one must agree with you here; it is truly the great problem: but farmers do not seem to be very successful in solving it. Almost all over the country, except in the vicinity of cities, the soil is constantly deteriorating, by its products being sent to market in some form or other, and a great proportion of the resulting manure goes into the ocean, or is otherwise wasted. Another great drain upon the soil is made by the exportation of such vast quantities of grain to foreign lands.

Even here, in these New England States, we are exhausting our lands by raising grain, hay, tobacco, potatoes, hops, milk, &c., for the market, some of which most farmers must sell in order to obtain the needed cash. Milk-raisers, (like the writer,) are selling some of the most valuable constituents of the soil for a mere pittance.

Agricultural writers have long declaimed against this evil, and urged that the products of the soil be turned into meat and butter, instead of being sold; but this is already done to a larger extent than is profitable, and bread the world must have as well as meat, and of course some portion of the country must furnish it.

I can see but one course of enabling the soil to sustain this constant drain, and that is, the turning in of green crops. We are told that, in many places, worn out and poor soils have, by this means alone, been rendered productive, and in

other cases the original fertility of the soil has by the same means been kept unimpaired.

Perhaps the experiments of Mr. Geddes, of Fairmount, Onondaga county, New York, may be new to some of your readers. Upon his farm, which is a large grain farm, clover and plaster are the main reliances for manure, and a large portion of it has never received any other manure whatever. For upwards of sixty years, this land has been constantly cropped with grain, hay, corn, &c., and he says that the yield has been steadily increasing—no animal manures being applied to this portion of the farm, in order to see how long the soil will continue to improve under this plan of manuring with clover only, large quantities of which are of course plowed in annually.

Believing, as I do, that this system of green manuring will yet be found to be an important auxiliary in arresting the deterioration of our soils, I cannot but hope that the day is not far distant, when the farmers of New England will give its merits a fair trial. How few farmers there are, but what feel cramped by want of manures. Let us try and see if we have not here the means of supplying this deficiency. There is much land which is so situated as to render the application of animal manures very expensive and difficult, and from this cause they have been allowed to remain in an unproductive state. Much of these lands might, I think, be made to produce remunerating crops by this system of plowing in green crops. At any rate, the cost of trying it would not be great.

X. Y. Z.

Worcester Co., Sept., 1861.

For the New England Farmer.

#### SEED CORN---ONIONS.

MR. EDITOR:—I have seen much about seed corn, and gathering the same. I have planted corn for thirty-two years, and have yet to learn that corn can be too ripe for seed. I have always gathered my seed at harvest, the brightest and best ears, and braid and hang them where they will dry without moulding, and have never failed of having enough come up when I planted my corn seed. I have had my neighbors ask the reason why my corn came up so much better than theirs? I plant good seed, was my answer, and when they would show me theirs, I found it had heated so that the skin was loose or yellow round the chit, or germ of the corn, or mouldy, so it would not grow, nor make good bread. I have exchanged seed sometimes, and found theirs had heated before husking, and planting a little, I found but few spears, and that was sickly. And as often as two years out of three, I have cut the stalks from part of my field to feed out as soon as the corn began to glaze, and always found that the best in the field at harvest. I never have been able to get so good corn by cutting at the ground as by cutting the stalks early.

How will onions grow on burnt land, sown in September, for the ensuing year? J. BOYCE.

Troy, N. H., Sept. 9, 1861.

REMARKS.—We think the onions will do well sown in September, on burnt land—hope you will try the experiment.

#### EXTRACTS AND REPLIES.

##### LEACHED ASHES FOR CROPS—CRANBERRIES.

How would it work to lay down a piece of land to grass, using leached ashes as manure, and how many ashes should I use per acre? How would leached ashes answer as a top-dressing for grass, and how many bushels per acre? How may leached ashes be best applied on the farm?

Is it better to sow cranberries, or set out the plants, in order to get a bed?

Worcester, Sept., 1861. OLD SUBSCRIBER.

REMARKS.—Unless on land of a fine loamy character, and that is decidedly rich, there should always be fine compost manure used when grass seed is sown, even if the amount is very small. The seeds need it to catch hold of when the germ is small and tender, and the sprouts will be quite sure to find it, although there is but little of it in the ground. None of the specific fertilizers, as they are called, such as ashes, plaster, guano, superphosphate, or any other of them, seem to answer the purpose so well as decomposed barn manures.

Twenty-five bushels of leached ashes, per acre, would have a fine effect—fifty would be better, on an exhausted soil, and one hundred would put it in condition for a great many years. If you have them at low cost, use them more liberally. Perhaps it would be better to use them more sparingly, per acre, and extend them over a broader surface, say to the pasture lands, and then dress with them more frequently.

You can hardly misapply ashes on the farm, as it loses nothing by exposure to the atmosphere. It is excellent, sown broadcast, mixed with loam, muck, or coarse vegetable matter, but should not be mixed with fresh manure.

Set cranberry plants by all means instead of sowing the seed.

##### INDIAN CETONIAN, *Cetonia Inda*.

Enclosed you will find two bugs which are making sad work in my corn-field. Their plan of operation is to commence on the tip of the ear and work down, eating the kernel clean as they go. If you know what they are, I wish you to inform me through the *Farmer*.

Berlin, Sept., 1861.

C. B. RATHBUN.

REMARKS.—We have occasionally seen the bug sent by our correspondent, but have never found it doing much mischief. We sent your letter and his bugship to Mr. F. G. SANBORN, one of the entomologists now engaged in preparing a new edition of Harris's work on insects, and he has very promptly and kindly sent us the following:

The enclosed specimens are those of a very common beetle called the Indian Cetonian, *Cetonia Inda*, which is very fully described on page 36 of the old edition of Harris's Treatise, and figured on page 40 of the forthcoming. It attacks the locust, oak and willow, wounding the bark,

and feeding on the sap which exudes. Fruit of various kinds, particularly peaches, are much injured by it, but it never occurs in sufficient numbers to do great damage to the corn crop. Very little is known of its transformation, and no method of preventing its depredations has yet been made public.

F. G. SANBORN.

#### CABBAGES.

There is no crop grown among us more successfully and advantageously than the cabbage. In proof of this I will state what I have this day seen on the Derby farm, situate on the borders of Salem harbor, under the culture of Mr. Samuel A. Merrill, who has for many years been noted for his superior vegetable product. Mr. M. assured me that he had sold, the present season, cabbages to the amount of more than three hundred dollars, from a single acre. He has several acres of this crop—and finds a ready sale for them as fast as he can get them to market. At my request he took two of the heads to his barn, and they weighed more than forty pounds each, as pulled in the field; and when divested of the root, and all loose leaves, they weighed thirty pounds each. The land on which they grew bore grass the last year. It has been thoroughly plowed, pulverized, and manured, the plow running to the depth of ten inches. No weeds were discovered growing among the plants. Mr. M. has many other fine crops of vegetables, such as beets, carrots and onions, all very handsome—but none equal to the cabbage. P.

September 10, 1861.

#### POWLS PLUCKING EACH OTHER.

Having read with interest many numbers of your much-valued paper for some years past, and having noticed while so doing a willingness on your part, that those interested would propound such inquiries respecting matters which interest the public, and particularly the farmer, I venture to inquire—what is the cause of barn-yard fowls plucking the feathers from each other, and what will prevent such a habit in them?

Charlton, Sept., 1861.

MECHANIC.

REMARKS.—We have had such uncomely behavior as is spoken of by our correspondent, in our own poultry yard—though only once or twice during many years. Had the fowls been confined we should have imputed it to that—but they were not. It may be habit, or it may be the want of some particular food essential to their health. Who can tell?

#### DOGS A NUISANCE.

Following the example of your learned brother, the Judge, I will speak of things in their natural way. I like the remarks I have seen in your paper about dogs. I consider them a useless annoyance, oftentimes extremely dangerous. I never pass a strange dog without fearing that I may be assaulted by him, especially as my imperfect sight occasionally exposes me to stumbling over them. It is only a short time since I inadvertently trod upon the paw of a large dog, who being offended at my approach, seized my foot in his mouth, and had not the leather been quite

firm, his teeth would have penetrated it, and my flesh also. I cannot be reconciled to such nuisances. P.

September 14, 1861.

#### EARLY GRAPES.

I send you a sample of grapes from seed, and would like your opinion of their quality. I do not know of a grape that ripens the first of September that will compare with them. Many have tried to procure an early table grape, and have not succeeded. I think each of the light-colored ones would do for table fruit; they lack in size only, I think. Please give your opinion.

I have a vine raised from a raisin which ripens from the 15th to 20th of September, purple, very nice.

ADDISON RICHARDSON.

East Medway, Sept., 1861.

REMARKS.—The grapes sent are certainly the sweetest we have ever found, ripening early in September. They are “foxy,” and have a hard pulp, but are better than most seedlings. We should think it worth while to attempt their improvement by cultivation.

#### MUCK AND ASHES—SOWING GRASS SEED—POPPING CORN.

Having purchased a run-down farm, and wishing to improve the mowing land, I propose hauling muck from the swamp, and mixing unleached ashes with it. When is the best time to mix the ashes with muck—when it is first dug, or wait until spring before mixing? I also think of running a harrow over the ground and sowing grass seed. What kind of seed would you recommend using, and when to sow it, fall or spring?

Is there any rule among farmers in regard to the time to top corn? SUBSCRIBER.

North Dartmouth, Sept. 2, 1861.

REMARKS.—Mix the ashes with the muck this fall, and overhaul the pile two or three times before next spring, so as to reduce it to a very fine condition, then spread it on the grass land and sow eight pounds of clover and four quarts of herdsgrass seed per acre, early in April, and follow with the harrow. Let us know the result.

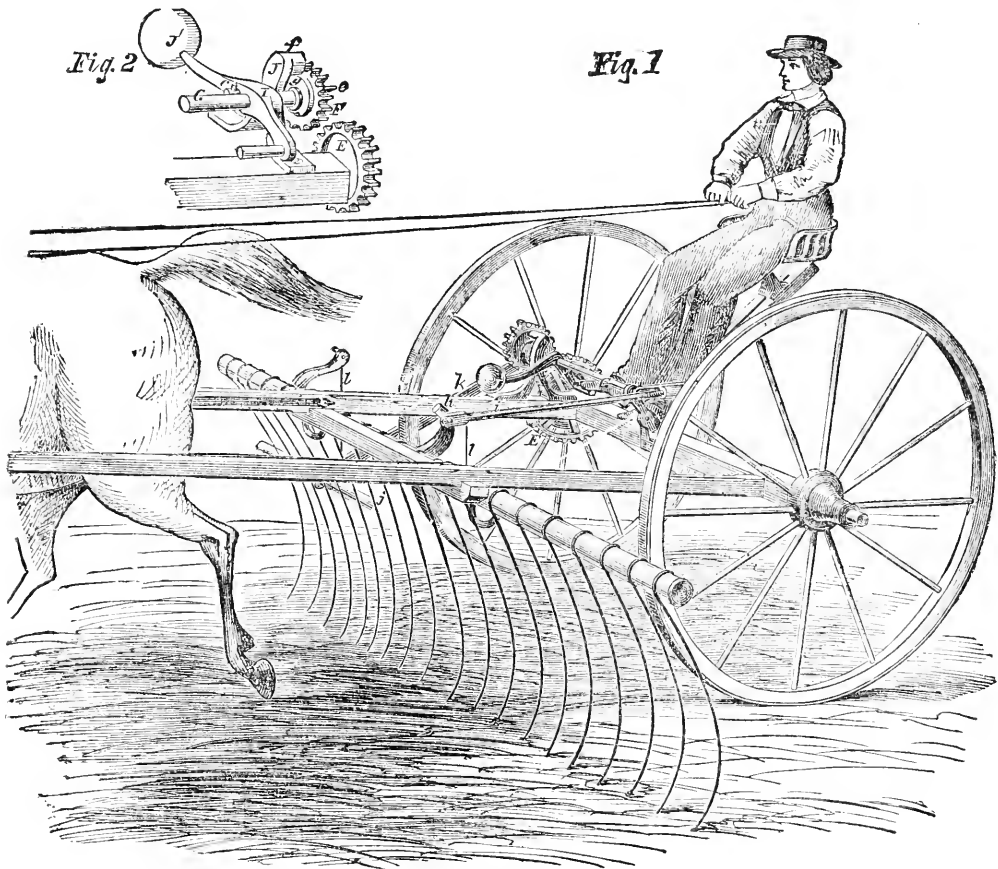
We know of no rule with regard to topping corn. By those who think highly of the tops for fodder, it is usually done as soon as the top or spindle becomes dry; those who think less of the tops, allow them to remain longer, urging that the corn is benefited by their remaining.

#### POULTRY.

I wish to inquire what is the best method of treating hens, to make it profitable to raise chickens for market, to sell eggs, &c. How should they be kept and how fed? J. D. STOWE.

West Boylston, Sept., 1861.

REMARKS.—The *Farmer* has recently had several excellent articles on the subject. Next week we will give one from a member of the *Concord Farmers' Club*, who is a practical poultry raiser.



#### STODDARD'S SELF-OPERATING HORSE-RAKE AND COCKER.

We have already spoken of this rake, and in terms as unqualified as we know how to use. We spoke of it, not from hearing of its merits, but from an actual use of it on all kinds of ground—smooth upland, stony land, and hassocky-meadows; on heavy, light, short, and long grasses, and could not fail of coming to the conclusion that it entirely supercedes every other horse-rake that we have used. This is strong language, we know, but it is precisely what we believe, and it would give us pleasure to be able to speak in this way more frequently of the merits of implements which we use.

Any person, boy or girl, or old man, that can *drive a horse*, can rake and cock with perfect ease, as the power applied by the touch of the toe to operate it does not exceed two pounds.

*Description.*—1. The superior advantage of this Horse-rake and Cocker consists chiefly in entirely transferring to the horse the usual labor of

holding the rake down while gathering its burden of grass, and tilting it up to leave the same, and also in tumbling the windrows into heaps by horse power, thus reducing this branch of manual labor to the mere touch of the toe to a pedal. Both hands are left at liberty to manage the horse, by this device.

2. The Rake can be thrown up while *backing*, as well as when moving forward.

3. The Rake conforms to the uneven surface of the ground, *independently* of the wheels.

4. The Rake being placed in front of the wheels, three advantages are secured: first, the lateral or side jerking of the horse is diminished in proportion as the wheels are placed nearer together; second, the grass is gathered before the wheels press it on to the ground, which is particularly desirable where it is wet; third, the driver can see whether the grass is being raked clean, without looking back of him.

The *Scientific American* says that experienced and competent agriculturists pronounce this rake a decided success, and it seems to us that it reduces the labor of gathering hay to the lowest point conceivable. In these times, when so many men are going away to the wars, all mechanism which facilitates the labors of those remaining, is of great value to the country; and this is especially true of machines which enable the work of a man to be done by a boy.

*For the New England Farmer.*

### THE KITCHEN.

Very much is written and said about pleasant and tastefully furnished parlors, but the kitchen is left quite in the background, except as it is described in stories of the olden time, "with ponderous beams overhead, from which hung festoons of dried pumpkin, apple, &c." It is too important a part of home to be neglected, yet it surely is neglected. The parlor must be cool and airy, and sunshiny; but the kitchen may be wherever there is room for it, with a view from curtainless windows, of barn-yard or wood-pile—no paint or carpet on the floor, no paper on the walls—furnished with chairs and tables, and also with clothes-frame and wash-tubs, a line of dish-towels over the stove, and a row of old hats, coats and frocks for ornaments. This is a picture of too many of our farmers' kitchens; of the place where we, housekeepers, are expected to spend a considerable portion of our time. No wonder that mothers look care-worn, and that farmers' wives and daughters complain of their field of labor. No wonder that soiled morning-dresses are seen, for clean calico; white collars and smooth hair could never feel at home in a dingy, cheerless kitchen, and the man who will not provide a pleasant one, deserves to take his breakfast every morning opposite a slovenly looking wife.

I think, now, of one cheerful kitchen, a simple one, to be sure—but the morning sun looks in through woodbine and roses, and never goes behind the western hills without giving us a good-night glance—and morning-glories love to peep in, and throw their dancing shadows on the shining floor. The distant view of hills and woodland makes many a weary burden light, by its silent teachings. We sing in such a kitchen, just because we cannot help singing, and a sad heart has no place there.

And now, as we, shivering, wrap our shawls about us, vainly endeavoring to convince ourselves that winter is not almost here, yet gladly bring our books and knitting-work around the big cook-stove, for the evening, do, husbands and fathers, hear my humble plea in behalf of the "suffering sisterhood," and give us a *cheery kitchen*.

HITTY G.

REMARKS.—That's the right kind of talk! Why, the kitchens of New England are of a thousand times more consequence than all the colleges of New England. The kitchen gives tone and character to more of our people than the colleges do,—we had almost said, and all the schools be-

sides. We like the schools and colleges, but because we have them, it is no reason why the kitchen should be forgotten or neglected.

### LAMPAS IN HORSES.

Having read an article in your columns about the lampas in horses, and the writer wishing for further information, I thought I would give him all that I could.

This disease consists in swelling of the roof of the mouth, near the front teeth, and is sometimes higher than the teeth. It happens generally between the third and fifth year, and is supposed to prevent a colt from gathering his food with ease, so that on that account he falls off in feeding, and consequently in flesh or condition. The usual remedy is to sear the parts next the teeth, with a piece of iron made for the purpose, or cut the parts until they bleed freely.

These remedies are still generally practiced, nor is it possible, I believe, for veterinary surgeons to prevent its being done. The lampas, as it is called, however, is not the cause of the colt's ceasing to feed well, and falling off in flesh; it depends upon his cutting the grinding teeth at the proper time; and if, instead of burning and cutting the lampas, as they term it, they would keep them entirely on bran mashes for a week, he would be able to eat his hay and corn with avidity; for the stomach, which always sympathizes with the mouth in the painful periods of dentition, is quickly restored, when the power of mastication returns.

We often find, when the lampas is present, that the membrane of the mouth just within the corners of the lips, is so swollen as to get between the grinders, thus preventing the animal from feeding. When this is the case, it is commonly called bags or washes, and may be removed by swabbing the mouth with a weak solution of the sulphate of iron. This disease is often occasioned by the bearing rein being too tight.—B., in *Germantown Telegraph*.

A REMEDY FOR CABBAGE LICE.—In perusing a late number of your paper, I see a remedy for the cabbage louse is called for. A cheap and effective remedy for this insect is within the reach of all. As soon as the cabbage begins to head, or as soon as the louse makes its appearance, open the leaves carefully with the fingers, and sprinkle common salt between them. This is said to be an infallible remedy—we have used it with entire success. Plants served in this way produce larger and solidier heads than those left to themselves.—J. S. C., in *Farmer's Advocate*.

SWELLINGS ON HORSES.—Swellings on horses or other domestic animals may be almost always dissipated by applying the following embrocation, viz: To two quarts proof whiskey, or other proof spirits, add one pint of soft soap. Warm the whole over the fire, and then bottle it, having added one ounce of camphor. This constitutes a liquid opodeldoc, and is an excellent article, if prepared according to the above recipe.



*For the New England Farmer.*

### POTATO CULTURE.

MESSRS. EDITORS:—In my rambles about the country in past years, I have made some observation upon the variety of ways, among farmers, of planting potatoes. Some of them plant in hills, some in drills, some plow deep furrows, others dig deep holes, while other labor-saving people plant nigh the surface. If "the soil breathes" as stated in the *Farmer* of the 7th Aug., potatoes in a growing state breathe also. Favorable weather is absolutely necessary for the production of any kind of crops, and we cannot reasonably expect a good crop of potatoes under any system of cultivation in seasons of drought and blight; these considerations being premised, I will give my idea of the necessity of air to the growing tuber.

From many years' experience, I am convinced that deep planted potatoes do not yield so well as those planted more superficially; those planted in deep holes or furrows produce small, sickly tubers, of poor quality, and in growing have not energy enough to burst the ground sufficiently to admit air for respiration, and they are partially suffocated by being below the breathing soil. In a dry season, potatoes planted superficially receive the benefit of small showers which would not reach the deeper planted ones, which might continue in the dry dirt unrefreshed. Most kind of trees and vegetables are nourished and supported by spreading roots, which, by instinct, are conducted nigh the surface in a "breathing soil." Tap roots that penetrate below the porous soil, probably afford but little or no nourishment to the vegetable, but by a wise provision of nature are destined for a strong support against contending upper elements.

The present season we planted our early potatoes upon a dry soil, the manure spread and plowed in, the potatoes covered nigh the surface, and notwithstanding the severe drought, we have a fine crop of excellent potatoes. As the tubers increased the hills were rent in cracks, which gave them a fine chance for "breathing" and receiving the scanty rains, until they arrived to full growth, without shewing the signs of the least injury by drought. I believe a certain degree of air is as necessary to come in contact with all kinds of vegetable roots to assist in their progress of growth, as it is to sustain animal life by being inhaled to the lungs. Deep planted potatoes, poorly supplied with air, I have found uniformly to produce "small potatoes," having no respect for manure or careful cultivation.

SILAS BROWN.

*North Wilmington, Sept., 1861.*

### ABUSE OF OLD HORSES.

A writer in the *Ohio Farmer* very justly complains of the too common abuse and neglect of old horses—of those which are past their prime. They are made to break the colts, and often work with them, thus requiring quicker movements than are natural, or than the old horse is able to give without straining and injury. "The old horse," he says, "should not haul his load to town, and then be forced to trot back. It does not injure him as much to do the heavy work with slow motion, as to do the light jobs at a quick

gait." He should also have, as he requires, more time to eat and rest, and his place in the stable should not be taken by the colts so that he is turned into the yard. The writer further remarks, (and we cannot but condemn the abuse, and hope it may become less common,) that "the last part of a horse's life may be more profitable, if rightly used, than the first part. There is more comfort and less danger in working old horses. We understand them, and they understand us; and we should be as willing to conform to their nature, as they are to conform to our wishes. It would be more humane, as well as more profitable, to use them as they should be, as long as it would pay, and then take them out and shoot them down. But the practice of many is to knock them about as much as they will bear, and pay well, and then trade them off to some *more inhuman wretch than themselves.*"

*For the New England Farmer.*

### CHAPTER ON PICKLES AND PICKLING.

BY MRS. N. DARLING.

HONEYSUCKLE APPLES.—Gather them when ripe and perfect as they can be; pick them over clean; take good strong cider vinegar, season with half or three-quarters of a pound of brown sugar to the quart, according to the taste, and one tablespoonful each of ground cinnamon and cloves; let the vinegar and seasoning boil two minutes, then put in the fruit, set them where they will keep hot for an hour or two, not above two hundred degrees, and then put them away to cool, and in a day they are fit for use. I do not think that the above pickles are calculated to keep very long—the fruit is too juicy, and in another sense, mine would never keep, for they are so delicious that a family of half a dozen persons will consume a peck in a week.

CUCUMBERS.—Gather the cucumbers, any kind or size you wish; (to me, the Short Cluster, an inch and a half to three inches in circumference, are the best;) to a peck of cucumbers add half a pint of coarse salt, and cover them with boiling water as soon as possible; let them stand two or three days, then wash them thoroughly and carefully, dry them off with a cloth, put them in a clean brass kettle, cover them with cider vinegar, put them over the fire, and let them just boil, then put them into your pickle cask. As your cucumbers increase, and you wish to make additions from time to time, let each parcel be done in the same way, using a small jar or tub, and not pour into the principal cask until they are cold in the vinegar; season with green peppers, either with or without seeds; better without. When the vines have done bearing, and no more cucumbers to add, wash them free from the scum in the old vinegar, pour the vinegar into a brass kettle, rinse the cask with fresh vinegar, pour it into the kettle, and put it over the fire to boil; return the cucumbers and peppers to the cask, add half a pint of crushed mustard seed to the bushel, boil and skim the vinegar well, or better, strain through a hair sieve or coarse cloth, boiling hot on to the pickles. When they are cold, spread an old white flannel cloth on the top of the cucumbers, to absorb any scum that may arise, and your work is done for the year. The pickles will keep hard, green and sour. The idea of put-

ting on fresh vinegar is entirely erroneous; cucumbers are not sufficient to take the strength of fresh vinegar twice, and will consequently dissolve in it.

*Remarks.*—I have never had any success in spicing cucumbers with foreign spices; the flavor was not injured, but their beauty would be more or less marred, let the spices be secured in cloths ever so carefully. I am told that the twigs of birch and sassafras, or the bark of sassafras roots, boiled in vinegar, imparts a delicious flavor to pickles. I have not had opportunity to try them, but think they may, for among our flavoring extracts none are more agreeable than our native wintergreen, birch and sassafras; besides, I am much in favor of using home productions, when it does not encroach on the principle of "Live, and let live," too much.

#### MY PICKLES, GREEN TOMATOES AND ONIONS.

—Take one peck of good solid, green tomatoes, and onions in proportion to suit the taste or fancy; mine is five quarts of tomatoes and three of onions; peel the onions as for boiling; wash and dry the tomatoes, cut them transversely in slices about the sixth of an inch in thickness; cut in small pieces, six large green, squash peppers, carefully leaving out all the seeds; put the slices in a tub or large pan, and sprinkle among them about a pint of fine salt; cover with an earthen or wood cover, and let them stand until the juice of the vegetables is well drawn out, twenty-four hours at least; then drain off all of the liquor carefully, pressing down with cover, or spread on a dry cloth, pressing on with the hands; when they are sufficiently drained, put them in your preserving kettle, cover them well with vinegar, prepared, ten or twelve ounces of brown sugar to the quart, a tablespoonful each of ground cinnamon and cloves, and a spoonful of crushed white mustard seed, if desired; let them boil well, about fifteen minutes, and put them up in pots or jars. When they are cold, they are fit for use. Where onions are not agreeable, tomatoes, without them, are very nice, done exactly in the same way. When the vinegar is strong and good, and the vegetables well drained, the above pickles will keep a long time; but if by accident they commence fermenting, scald immediately.

**ONION SALAD.**—Peel, wash and slice the onions thin; cover with water, set them on the stove, and let them boil about five minutes; drain off the hot water, and rinse them with cold; drain it off well, salt and sweeten your vinegar to suit the taste; pour it over the onions, and the dish is ready for the table; if any doubt their being good, let them try it. If any one wishes to prepare enough to last a week or ten days after they are prepared as above, let them boil four or five minutes in the vinegar.

*Remarks.*—Those who are in the habit of shedding tears while peeling onions, may find an antidote, by keeping them immersed, or dipping frequently in warm water; rubbing the hands well with a ripe tomato, takes off the stain and odor; so do not get discouraged, sister cooks.

**SALTING CUCUMBERS.**—Cover the cucumbers with boiling water, soon after they are gathered; when they are cold, wash them out of it, and put them in your pickle cask; put on plenty of salt, and a little water, and let the brine form; lay a

flannel cloth over them, making it touch the cask in every place, and sprinkle salt on the top of it; add cucumbers as you have occasion, taking special care that the cloth is well spread over every time, and salt kept on the top of it, for the disappearance of salt on the cloth, is a sign that more is wanted, without the trouble of stirring up from the bottom.

*Remarks.*—I have salted barrels in this way, without losing a cucumber by exposure, or having any waste of surplus salt, and they always brought the highest price in market. The benefit of scalding is, to get out the natural gum, and prevent the accumulation of scum; also to prevent the natural withering, and make them more fresh and tender when soaked out for use.

*New Haven, Ct., Sept. 10, 1861.*

#### IMPORTANCE OF PRESENCE OF MIND.

1. If a man faints, place him flat on his back and let him alone.

2. If any poison is swallowed, drink instantly half a glass of cool water with a heaping teaspoonful each of common salt and ground mustard stirred into it; this vomits as soon as it reaches the stomach; but for fear some of the poison may still remain, swallow the white of one or two raw eggs, or drink a cup of strong coffee, these two being antidotes for a greater number of poisons than any dozen other articles known, with the advantage of their being always at hand; if not, half a pint of sweet oil, or lamp-oil, or "drippings," or melted butter or lard are good substitutes, especially if they vomit quickly.

3. The best thing to stop the bleeding of a moderate cut instantly, is to cover it profusely with cob-web, or flour and salt, half-and-half.

4. If the blood comes from a wound by jets or spurts, be sly, or the man will die in a few minutes, because an artery is severed; tie a handkerchief loosely around near the part *between the wound and the heart*; put a stick between the handkerchief and the skin, twist it round until the blood ceases to flow, and keep it there until the doctor comes; if in a position where the handkerchief cannot be used, press the thumb on a spot near the wound, *between the wound and the heart*; increase the pressure until the bleeding ceases, but do not lessen that pressure for an instant, until the physician arrives, so as to glue up the wound by the coagulation or hardening of the cooling blood.

5. If your clothing takes fire, slide the hands down the dress, keeping them as close to the body as possible, at the same time sinking to the floor by bending the knees; this has a smothering effect upon the flames; if not extinguished, or a great headway is gotten, lie down on the floor, roll over and over, or better, envelop yourself in a carpet, rug, bed-cloth, or any garment you can get hold of, always preferring woolen.

6. If the body is tired, rest; if the brain is tired, sleep.

7. If the bowels are loose, lie down in a warm bed, remain there and eat nothing until you are well.

8. If an action of the bowels does not occur at the usual hour, eat not an atom until they do act, at least for thirty-six hours; meanwhile drink

largely of cold water or hot teas, and exercise in the open air to the extent of a gentle perspiration, and keep this up until things are righted; this suggestion, if practiced, would save myriads of lives every year, both in city and country.

9. The three best medicines in the world are warmth, abstinence and repose.—*Hall's Journal of Health.*

#### WALRUS HUNTING.

I never in my life witnessed any thing more interesting and more affecting than the wonderful maternal affection displayed by this poor walrus. After she was fast to the harpoon, and was dragging the boat furiously among the icebergs, I was going to shoot her through the head that we might have time to follow the others; but Christian called to me not to shoot, as she had a "junger" with her. Although I did not understand his object, I reserved my fire, and upon looking closely at the walrus when she came up to breathe, I then perceived that she held a very young calf under her right arm, and I saw that he wanted to harpoon it; but whenever he poised the weapon to throw, the old cow seemed to watch the direction of it, and interposed her own body, and she seemed to receive with pleasure several harpoons which were intended for the young one.

At last a well aimed dart struck the calf, and we then shortened up the lines attached to the cow, and finished her with the lances. Christian now had time and breath to explain to me why he was so anxious to secure the calf, and he proceeded to give me a practical illustration of his meaning by gently "stirring up" the unfortunate junger with the butt end of a harpoon shaft. This caused the poor little animal to emit a peculiar, plaintive, grunting cry, eminently expressive of alarm, and of a desire for assistance, and Christian said it would bring all the herd round about the boat immediately. Unfortunately, however, we had been so long in getting hold of our poor little decoy duck that the others had all gone out of hearing, and they abandoned their young relative to his fate, which quickly overtook him in the shape of a lance thrust from the remorseless Christian.

I don't think I shall ever forget the faces of the old walrus and her calf as they looked back at the boat! The countenance of the young one, so expressive of abject terror, and yet of confidence in its mother's power of protecting it, as it swam along under her wing; and the old cow's face showing such reckless defiance for all that we could do to herself, and yet such terrible anxiety as to the safety of her calf!

The walrus is an inoffensive beast if let alone, but hunting them is far from being child's play, as the following sad story will show:

About ten days after the exciting *chasse* which I have just described, the skipper of a small schooner which was in sight came on board to ask us for the loan of a gun, as he had broken all his, and he told us that a boat belonging to a sloop from Tromsøe had been upset two or three days before in our immediate vicinity, and one of the crew killed by a walrus. It seemed that the walrus, a large old bull, charged the boat, and the harpooner, as usual, received him with his lance full in the chest; but the shaft of the lance broke

all to shivers, and the walrus, getting inside of it, threw himself on the gunwale of the boat and overset it in an instant. While the men were floundering in the water among their oars and tackle, the infuriated animal rushed in among them, and selecting the unlucky harpooner, who I fancy had fallen next him, he tore him nearly in two halves with his tusks. The rest of the men saved themselves by clambering on to the ice until the other boat came to their assistance.

Upon another occasion I made the acquaintance of the skipper of a sloop who had been seized by a bereaved cow walrus, and by her dragged twice to the bottom of the sea, but without receiving any injury beyond being nearly drowned, and having a deep scar plowed in each side of his forehead by the tusks of the animal, which he thought did not wish to hurt him, but mistook him for her calf as he floundered in the water.

Owing to the great coolness and expertness of the men following this pursuit, such mishaps are not of very frequent occurrence, but still a season seldom passes without two or three lives being lost one way or another.

No one who has not tried it will readily believe how extremely difficult it is to shoot an old bull walrus clean dead. The front or sides of his head may be knocked all to pieces with bullets, and the animal yet have sense and strength sufficient left him to enable him to swim and dive out of reach. If he is lying on his side, with his back turned to his assailant, it is easy enough, as the brain is then quite exposed, and the crown of the head is easily penetrated; but one rarely gets the walrus in that position, and when it so happens, it is generally better policy to harpoon him without shooting.

By firing at an old bull directly facing you, it is almost impossible to kill him; but if half front to you, a shot just above the eye may prove fatal. If sideways, he can only be killed by aiming about six inches behind the eye, and about one-fourth of the apparent depth of his head from the top; but the eye, of course, cannot be seen unless the animal is very close to you, and the difficulty is enormously increased by the back of the head being so imbedded in fat as to appear as if it were part of the neck.—*Seasons with the Sea-Horses.*

INTELLIGENCE OF THE LARK.—A pair of larks had built their nest in a grass field, where they hatched a brood of young. Very soon after the young birds were out of their nests, the owner of the field was forced to set the mowers to work, the state of the weather forcing him to cut his grass sooner than usual. As the laborers approached the nest, the parent birds seemed to take alarm, and at last the mother laid herself flat upon the ground, with out-spread wings and tail, while the male bird took one of her young out of the nest, and by dint of pushing and pulling, got it on its mother's back. She then flew away with her young one over the fields, and soon returned for another. This time, the father took its turn to carry one of the offspring, being assisted by its mother in getting it firmly on his back; and this manner they carried off the whole brood before the mowers had reached their nest.—*Wood's Natural History.*

## CATTLE SHOW AT CONCORD.

The *Sixty-Seventh* annual exhibition of the *Middlesex Agricultural Society* took place at Concord, on Thursday last, Sept. 19. The weather was one of those clear, hot, New England days that usually precede the line storm; a little too hot and dusty for comfort, but one upon which there was no doubt, so that all who desired to go to the Show did not hesitate on account of the weather. But it was not hot enough to enervate any person of energy, or to suppress the lowing of kine, the pawing of rampant steeds or crowing of lusty cocks. Everything seemed to be rife with life, and glad to come forth on this gala day, so full of ancient usages and memories. The aged men and women were there, looking at the mammoth productions of a young America, but matching them with tales of their own achievements in days long gone by. The boys and girls were there—buoyant and hopeful as young life itself—giving color and tone to all, as brilliant gems give lustre to more sombre surroundings. So the middle-aged were there—the workers full of bustling activity, controlling and progressing to the grand result. Scholars were there—doctors of Law and Divinity; Professors,—men of genius—inventors, all had turned from their accustomed pursuits to mingle in the happy throng to see and be seen, or generously add something to the attractions of the occasion! And well did they discharge their duty, for as the curtain of night fell quietly over the scene, every avenue from the grounds was filled with gratified participants diverging from the centre as the rays from a star.

Considering the great scarcity of fruit, and how deeply the public mind is absorbed in the war, the exhibition was a good one. The officers of the society, and the people, had evidently exerted themselves—as they always do in old Middlesex—to make the show a good one. Yet with the exception of vegetables and flowers, we think there was less in every other department than there has been many times before, and especially was this the case in the show of neat cattle. Small as this was, however, it contained several admirable specimens of stock. The Ayrshires of G. M. BARRETT, of Concord, and LEONARD HOAR, of Lincoln, the fat and working oxen of NATHAN BROOKS, and NATHAN PRATT, of Acton, the fat cattle of A. BOYINGTON, of Pepperell—the sleek and beautiful herd of Jerseys, of JOHN B. MOORE, of Concord, and one of A. B. WELLINGTON, of Wayland,—the dark and well-fed Devons of brother BUCKMINSTER, of Framingham, were a credit not only to Middlesex, but to the State.

The number of *Swine* was small, but they were all excellent. A. S. LEWIS, of Framingham,

made a fine show, and so did WM. HASTINGS, of the same town, presenting the finest boar we have recently seen. T. J. DAMON, of Wayland, had three very fine pigs of the Columbia county and Suffolk breeds; but the swine that would make the mouth of a lover of “pork and beans” water, were the two porkers of AUGUSTUS TUTTLE, of Concord, resting complacently upon a bed of freshly turned earth, which, contrary to all secession proclivities, they had condescended to make *for themselves* before lying down! They were very fine, indeed; clean, healthy, inviting.

There were 31 entries of *Horses*, and among them some superior animals. They were shown off in the ring, and made an interesting part of the exhibition.

The show of *Poultry* was not large, there being but 16 entries in all, but it included some very fine specimens of various breeds. JOHN HOSMER and HIRAM JONES, Concord, had fine turkeys; P. GLEASON, Wayland, had a crate full, four months old, that seemed to us unusually large for that age. He also had six ducks, almost vying with the splendid Wood Duck in beauty of plumage. They were white on the under side of the neck, on the breast and wings, and the remainder jet black. JOHN BROWN, 2d, Concord, had a coop of fine Brahma Pootras. GEORGE M. BARRETT, Concord, also presented very fine fowls. He raises them in large numbers, and understands the business well. J. B. FARMER, Concord, presented a coop containing seven pullets and a cock of mixed breed, but very handsome. We understood him to say that he had 35 fowls on the first of January last, and that on the first day of September instant, his income from them had been \$135!

The show of *Farm and Culinary Implements* was small—including a few plows, one Woods' mowing machine, a few hay cutters of the Green Mountain pattern, and Rhoades' Clothes Wringer.

The display of *Fruit* was creditable for *this* year, but bore only a faint resemblance to that which has been upon the table in former years. In conversation with several persons who are large fruit-raisers, we found the opinion common that there is just about one barrel of apples this year where there were fifty barrels last year. There were few pears, fewer peaches, and of that variety of apple so common all over the county, the Baldwin, we could find only about a dozen plates on the table, and these would have been second rate last year. There was a pretty fair show of grapes, including the Isabella, Concord, Hartford Prolific, Diana, Delaware, and perhaps some others. EBENEZER DAVIS, of Acton, had a beautiful vine of the Sweet Water, with some tempting clusters.

*Bread and Butter* were presented in consider-

able quantity, and included excellent samples of each. We were especially pleased with the taste and appearance of the butter.

Perhaps we have never seen at this Show a finer show of *Vegetables*. The collection presented by JOHN B. MOORE, of Concord, included many kinds, and would be worth going far to see.

The *Household* articles, presented by the ladies, were numerous, indicating industry, excellent taste and practical usefulness.

There were 15 entries of *Grain*, and 34 of *Flowers*, the latter greatly adorning the tables, and attracting the attention of all.

The *Plowing Match* was well attended, and the work admirably performed—several ox and horse teams engaging in the contest. The *Trial of Working Oxen* took place on the grounds, where ample evidence was afforded that Middlesex men understand how to discipline their teams.

The two hours at the *Dinner Table* were filled to their utmost capacity with most pleasant gastronomical and mental exercises. The *Address*, by Gov. WASHBURN, was an excellent one. He gave a glowing contrast between the ownership of lands and the condition of agricultural laborers of this country and Great Britain, closing with a burst of enthusiasm which thrilled every heart, and made the hall ring with rounds of applause. He was followed by Mr. DAVIS, a delegate from the State Board of Agriculture and President of the Plymouth Society, Mr. CLEMENT, of Dracut, from the North Society, WM. G. LEWIS, of Framingham, of the South Society, Major PHINNEY, of the Barnstable *Patriot*, President FELTON, of Harvard College, Mr. TRAIN, M. C., and Mr. BUCKMINSTER, of the *Ploughman*. The dinner was one of SMITH's best, so all that the exercises at the table were of a vastly agreeable character, and tended to make every body good-natured, "war or no war," "premium or no premium."

A little later, the Society elected the following officers for the next year, and then the business of the *Sixty-seventh* Anniversary of the Old Middlesex Society was over :

E. W. BULL, Concord, *President*; W. W. CHENERY, Belmont, ASA CLEMENT, Dracut, *Vice Presidents*; JOHN B. MOORE, Concord, *Secretary*; RICHARD BARRETT, Concord, *Treasurer*.

#### LOOK ON THE BRIGHT SIDE.

Look on the bright side of things. It is the right side. The times may be hard, but it will make them no easier by wearing a gloomy and sad countenance. It is the sunshine, not the cloud, that makes the flower. Full one half our ills are only so in imagination. There is always that before or around us which should cheer and fill the heart with warmth.

The sky is blue ten times where it is black

once. You have troubles, it may be. So have others; none are free from them. Perhaps it is as well that none should be. They give sinew and tone to life; fortitude and courage to the man. That would be a dull sea, and the sailor would never get skill, where there was nothing to disturb the surface of the ocean.

It is the duty of every one to extract all the happiness and enjoyment he can without and within him; and above all, look on the bright side. What though things do look a little dark? The lane will turn and the night end in broad day. In the long run, and very often in the short, the great balance rights itself. What is ill becomes well; what is wrong, right.

Men were not made to hang down their heads or their lips, and those who do, only show that they are departing from the path of common sense and right. There is more virtue in one sun-beam than in a whole hemisphere of cloud and gloom. Therefore, we repeat, look only on the bright side of things. Not the cold, repulsive, dark and morose.

#### MAKE FARM LABOR FASHIONABLE.

At the base of the prosperity of any people lies this great principle—make farm labor fashionable at home. Educate, instruct, encourage; and offer all the incentives you can offer, to give interest and dignity to labor at home. Enlist the heart and the intellect of the family in the support of a domestic system that will make labor attractive at the homestead. By means of the powerful influences of early home education, endeavor to invest practical labor with an interest that will cheer the heart of each member of the family, and thereby you will give to your household the grace, peace, refinement and attraction which God designed a home should possess.

The truth is, we must talk more, think more, work more and act more, in reference to questions relating to home.

The training and improvement of the physical, intellectual, social and moral powers and sentiments of the youth of our country, require something more than the school-house, academy, college and university. The young mind should receive judicious training in the field, in the garden, in the barn, in the workshop, in the parlor, in the kitchen—in a word around the hearthstone at home.

Whatever intellectual attainments your son may have acquired, he is unfit to go forth into society if he has not had thrown around him the genial and purifying influences of parents, sisters, brothers, and the man-saving influence of the family government. The nation must look for virtue, wisdom and strength, to the education that controls and shapes the home policy of the family circle. There can be no love of country where there is no love of home. Patriotism, true and genuine, the only kind worthy of the name, derives its mighty strength from fountains that gush out around the hearthstone; and those who forget to cherish the household interests will soon learn to look with indifference upon the interests of their common country.

We must cultivate roots—not tops. We must make the family government, the school, the agricultural fairs, the laboratories of our future

greatness. We must educate our sons to be farmers, artisans, architects, engineers, geologists, botanists, chemists—in a word, practical men. Their eyes must be turned from Washington to their States, counties, townships, districts, and homes. This is true patriotism; and the only patriotism that will perpetually preserve the nation.—*Gov. Wright.*

#### VERMONT STATE SHOW.

When this Exhibition took place, we were exploring in the eastern section of our own State, but hoping that some one of our attentive correspondents in Vermont would send us an account of their State Show. In this, we have been disappointed. We find, however, that brother HOWARD, of the *Cultivator*, was present, and has reported pretty fully. From that report we extract the following:

The show-ground comprised an area of forty acres, situated half a mile south of the town, fairly in the valley of the Otter Creek, the boundaries of which, on both sides, are mountain ranges that add much to the interest of the landscape, under the varied aspects of light and shade, sunshine and cloud.

The accommodations were in every respect ample for a State exhibition. The buildings for the different departments are placed in good positions, and sufficiently well finished and substantial to last many years. The sheds for the accommodation of live stock are well arranged, and on the whole, as well fitted for the comfort of the animals as any we have ever seen in this country.

The leading features of Vermont shows are usually horses and Merino sheep. Of the former, there have frequently been 350 to 400 at the State shows. This year there were only 145. But they made a very creditable appearance, and there were many "good ones" among them. They belonged almost entirely to the class of roadsters, and were divided into three families of Morgans—Sherman, Woodbury and Bulrush—a fourth division, under the head of "Hambletonians and other bloods," taking in all the rest. The Sherman Morgans included the progeny of Black Hawk.

The show of cattle was in one respect the best we have seen in the State, viz., in Short-horns. They comprised in fact nearly all that was interesting in this department. Not a Hereford was on the ground, and only two animals (a pair of five-year old oxen) that showed any Hereford blood. Of the Devons, Daniel Davis & Sons, of Windsor, showed their good bull, which we have had occasion to notice on former occasions, and a few other specimens of the breed, and these were about all of any note. We saw but one animal under the name of Ayrshire, and that was a poor specimen. But the Short-horns made quite a display as to numbers, though most of them were not of the highest character. Richards Bradley, of Brattleboro', showed his two-year old bull, Field Marshal, bred by Mr. Thorne, of New York. He is decidedly the best animal of the breed we have ever seen in Vermont.

In sheep, of course, the Spanish Merinos took the lead, though the English long-wooled, which

have of late years been increasing in the State, made a larger display than they have ever done before.

In Long-wools, Richards Bradley, of Brattleboro', showed imported Cotswold ram, an animal of excellent symmetry and a heavy coat of wool, but, having had only the run of a short pasture, not fat enough to show to advantage.

In the swine and poultry departments, we saw nothing particularly deserving of note.

In the mechanical and implement department, we noticed the mowing-machine of Mr. Wood, of Hoosick Falls, N. Y., and Herrington's mowing-machine, made in the same town. But neither of the machines were tried. Wood's is well known; Herrington's appears to have some advantages in regard to raising the knife-bar, but an actual test would be required to justify an opinion of it.

Mr. Howard says, that, despite the rain which occurred on the second day, and the absorbing interest of all in the war, the results of the show upon the whole were satisfactory. We regret that we could not have been among the Vermonters on that day.

#### MAKING PICKLES.

Will you oblige me, and perhaps many others, by giving in an early number of your paper, a good receipt for pickling cucumbers on a large scale, so that they will be certain to keep sound, and always ready for use.

A. L.

*Waverly, Luzerne Co., Pa., Aug. 24, 1861;*

Not understanding the mode of manufacturing pickles, we have consulted a notable housewife, who furnishes in substance the following directions:

Cut the cucumbers from the vine by means of scissors or a sharp knife, so as not to tear the end, as would be the case if merely plucked by hand. Wash them in cold water, and then lay them in the bottom of a barrel or jar, into which a layer of salt has been previously deposited, so that when successive layers of cucumbers and salt are made the former will be imbedded in salt, the moisture which covers them tending to dissolve the salt, and convert it to brine. They may remain a long time in this condition—many keep them until sold in market. To finish the pickling process, take a quantity of good vinegar, but not too sharp, or it will destroy the texture of the cucumbers, and give it the flavor of spices, by placing equal quantities of cloves, red and black pepper in a bag, so as to give about half a teacupful of this mixture to a gallon of vinegar, both to be boiled together. Then, having previously removed the pickles from the salt, and soaked them about eight or nine days in fresh water, changing the water each day, pour the hot vinegar, spices, pepper, bag and all, over the cucumbers, and in two weeks they will be ready for use. Some who make very sharp pickles, pour off the first vinegar, and make a second addition, keeping the first liquor for the next batch.

Probably the same process in substance is to be adopted on a larger scale. If any of our readers know a better mode, we should be glad to hear from them.—*Country Gentleman.*

*For the New England Farmer.*

### THE WHEAT MIDGE.

As this unwelcome stranger made its first visit to this vicinity the present season, it may be interesting to the farmer to learn something of its character and habits; I believe the said insect is known in Ohio as the red weevil, which may be found described in the Patent Office Report (Agricultural) for the year 1854. See Plate 5, Insects injurious to wheat. It appears there are two kinds of weevil, of different habits: first, the rice weevil, which commits its depredations on rice and wheat by perforating the kernel of the grain in the dry state, even after it is threshed; also, the red weevil or midge, which subsists on the juices of the head and forming grains of wheat, perhaps drawing the essential nutriment therefrom, necessary for the perfection of the berry.

The first I discovered of the latter genus was on a small field of winter wheat, the latter part of June, the present season; they appeared on it in large numbers, say from thirty to forty on a head, perhaps on a fifth part of the heads before the wheat had arrived at the milky state, and continued till nearly harvest time. They disappeared gradually, and judging from the large number of speckled bugs (the same that your correspondent, "K." fears is a rogue) on the wheat, I had fully made up my mind that my wheat had in a measure been relieved of the midge by this mud turtle genus, and I advise your correspondent "K." not to plot his destruction till he has sufficient evidence that he is an enemy.

I believe the said bug, of a pale red color, with black spots, none other than the Lady Bird described in the above report, page 85, also plate 8th, "Insects Beneficial to the Agriculturist." My wheat was not injured in the least, by the midge or any other insects. I marked two stalks, one of which was covered with the vermin, while the other was free from it; but when ripe, no difference appeared in the grain. Although I did not see the lady bird devour the midge, yet I did see another insect, probably the ichneumon fly, with a veritable midge in his mouth.

The midge appeared on spring wheat and late oats in this vicinity, but I do not learn that much damage is attributed to the insect, although both of the latter grains afford but a meagre crop this year; still, through the ravages of this insect whole fields have been nearly destroyed in Ohio. (See statement of Thomas F. Hicks in above report, page 145.) But why this puny insect should wander the vast distance from beyond the Ohio to the Atlantic States, or why the army worm should travel from the land of cane and cotton to the bleak shores of New England, is a problem which I am not able to solve, unless being members of the Peace Society, they have come to escape the strife of civil war and bloodshed.

Stow, Sept., 1861.

H. FOWLER.

**THE DRACUT AMBER GRAPE.**—In the advertising columns the *Dracut Amber Grape* is offered for sale by Mr. J. W. MANNING, of Reading. He brought in several bunches which were tested by our corps editorial and clerical, and pronounced good. A portion of them were gath-

ered Sept. 16th, and others Sept. 28th—the latter having greatly improved by remaining upon the vines. The core of the Amber is not solid, but is a sort of semi-fluid, is sweet enough for most palates, while the pulp near the skin is quite rich and sweet. It is thought that this grape will prove excellent for wine. Mr. Manning is about making up a considerable quantity into that article, one portion to be the pure juice only, another to have the addition of a little sugar, and a third to have both sugar and water.

*For the New England Farmer.*

### SEEDLING GRAPES.

I send you a few grapes, from a Catawba seedling, that I have, asking whether you would consider it worthy of cultivation? The vine is about seven years old, has never been pruned, stands very much in the shade, and runs upon a tree. The grapes have always been ripe by the 10th of September; this year I found them eatable on the first day of this month; these I send you are the last of the crop, and do not seem to me to be as sweet as they were ten days since. You will doubtless notice that these clusters are very small. Would pruning and cultivation increase their size? I am not at all "posted" in "grapes," as you may judge, by my sending these "specimens" to you, but wish to cultivate enough for my own family and friends. I have prepared a nice border for a half-dozen vines, and now come to you for advice. If you will sometime say something about grapes in the *Farmer*, and give me a hint as to your opinion of this I send, you will confer a favor on a "poor farmer."

The advice you gave us at our "Club," on that stormy March evening, was not all lost. A few of the most daring of our members tried wheat last spring, with good success, and many, I think, will try to raise enough for their own use, after this. There will quite a number of families among us indulge in strawberries next summer, and will, I know, thank you for directing their attention to the subject.

Can the raspberry be transplanted in the fall, with success? I wish to make a plantation at the earliest suitable time; if you think it would be interesting to your readers, I very much wish you would give some directions for doing, so.

O. H. SHAW.

North Middleboro', Sept., 1861.

**REMARKS.**—The grape sent is an unusually sweet and high-flavored seedling, and, we should think, worthy of careful cultivation and close pruning. You have prepared nice borders—now dress them with wood ashes, bone dust, and with coarse manure on the surface, to remain until spring. In November, when the leaves are off, prune rigidly, leaving the main stem not more than six feet high, and cut off the side shoots down to within two buds of the leader. This course is designed for *producing grapes*—if you wish the vine for shade, let it run. In the growing season,

keep the leader down to the six feet, and when the new wood has started out, and two or three bunches of grapes are set, pinch off the end of the shoot, and continue to do so through the summer. In this way you will be likely to produce a few bunches of large and well-matured grapes, probably weighing as much as a large number of ill-formed, scattering bunches, half of which never get far enough to be covered with bloom. It certainly does seem a little savage to prune as closely as the best cultivators direct—but the best results flow from such a practice.

It gives us pleasure to learn that your people have attempted the cultivation of wheat, and that there is a prospect that some will "try to raise enough for their own use, after this." They must not be discouraged, because the late season was unfavorable for all the small grains. Wheat came out as well as any of them. If managed judiciously, it will be found a profitable crop.

The strawberry is easily cultivated, and every family that has a few feet of land can have a supply, by taking a little pains.

We would not recommend transplanting the raspberry in the fall. Prepare the ground in the autumn and have it ready for the plants in the spring, and have plants as soon as they are entirely free from frost. Land that will produce fifty bushels of corn per acre, will bring good raspberries, and a good mode of setting them is very much as we plant a field of corn. If a slight stake is set in each hill, and a string passed round the whole, they are more easily tended, and perhaps may be more prolific.

*For the New England Farmer.*

### THE CULTIVATION OF GRAIN CROPS.

STATEMENTS BY N. HITCHCOCK, DEERFIELD.

MR. EDITOR:—By request of one of your readers, I submit the following revised and detailed account of my corn, rye and oat crops. I should have written a more full account at first, but feared, perhaps, my room would be better than my company in your valuable paper.

There are several things to be considered, some to my advantage, and some not. The land on which these crops were raised is situated in the Deerfield meadows, a common field of several thousand acres, each man's lot distinguished by bound stones; these lots varying in size as well as in price, it being valued from \$50 to \$175 per acre. I am obliged to go, on average,  $1\frac{1}{2}$  miles to get to the land, taking food enough for man and beast through the day, and by so doing, I contend that a man accomplishes more in a day than when the land is directly around the homestead, for we work early and late, and have but little interruption. My team was two yoke of steers and a horse; the steers somewhat like a boy, benefited by being worked. My labor reckoned at \$19 per month, and board. It is considered a day's work here for a man to hoe and cul-

tivate 1 acre the first time,  $1\frac{1}{2}$  the 2d and 3d times; cut and bind 1 acre of top stalks, pick and husk 20 bushels of shelled corn and put in the bin. In carting, I load both ways if possible—carry a load of manure, bring home a load of pumpkins, and take one or two loads of manure in the morning, when we go to work for the day.

#### STATEMENT OF OAT CROP.

|   | Dr.      |
|---|----------|
| To $6\frac{1}{2}$ days' work, 1 man, 1 pair cattle, plowing $6\frac{1}{2}$ acres..... | \$8.50   |
| To $1\frac{1}{2}$ " " " " " " sowing $6\frac{1}{2}$ acres.....                        | 3.00     |
| To $10\frac{1}{2}$ bushels of seed.....   | 8.39     |
| To part of the manure of the previous year.....                                       | 9.00     |
| To $5\frac{1}{2}$ days' work cutting and carting.....                                 | 7.60     |
| To threshing.....   | 8.50     |
| To interest on land.....  | 24.00    |
|   | <hr/>    |
|   | \$66.39  |
|   | Cr.      |
| By 221 bushels of oats, at 43 cents, for 32 pounds.....                               | \$95.03  |
| By 4 tons of straw.....   | 36.60    |
|   | <hr/>    |
|   | \$131.43 |

#### STATEMENT OF RYE CROP.

|   | Dr.     |
|---|---------|
| To plowing $3\frac{1}{2}$ acres, at \$1 per acre..... | \$3.50  |
| To sowing and seed.....                               | 3.55    |
| To $4\frac{1}{2}$ days' work cutting and carting..... | 5.40    |
| To threshing.....                                     | 4.60    |
| To part of the manure from the corn crop.....         | 7.00    |
| To interest on the land.....                          | 18.00   |
|   | <hr/>   |
|   | \$42.05 |
|   | Cr.     |
| By 71 bushels of rye, at 80 cents per bushel.....     | \$56.80 |
| By 3 tons of straw, at \$7.50 per ton.....            | 22.50   |
|   | <hr/>   |
|   | \$79.30 |

#### STATEMENT OF CORN CROP—SIX ACRES.

|  | Dr.      |
|--|----------|
| To 17 days' work planting.....                                       | \$17.00  |
| To 9 days' work of team, carting manure and plowing.....             | 10.73    |
| To 13 cords of manure, at \$3 per cord.....                          | 48.00    |
| To ashes and plaster.....  | 3.00     |
| To seed corn.....  | 1.25     |
| To 7 days' work hoeing, 1st time, at \$1.20 per day.....             | 8.40     |
| To $5\frac{1}{2}$ days' work hoeing, 2d time, at \$1.20 per day..... | 6.60     |
| To 6 days' work hoeing, 3d time, at \$1.30 per day.....              | 7.80     |
| To cutting weeds in corn.....  | 1.75     |
| To 5 days cutting top stalks, at \$1.17 per day.....                 | 5.85     |
| To $1\frac{1}{2}$ days' work, cutting corn fodder.....               | 1.75     |
| To $13\frac{1}{2}$ days, picking and husking corn.....               | 18.87    |
| To interest on land.....   | 24.00    |
|  | <hr/>    |
|  | \$162.80 |
| Deduct $\frac{1}{2}$ of manure.....                                  | 16.00    |
|  | <hr/>    |
|  | \$146.80 |
|  | Cr.      |
| By 1088 bundles of stalks, at $1\frac{1}{2}$ cents per bundle.....   | \$13.60  |
| By 664 bundles of corn fodder.....                                   | 9.96     |
| By 1 ton of corn husks, for matrass.....                             | 13.00    |
| By 256 bushels of corn, at 75 cents per bushel.....                  | 192.00   |
| By 4 loads of pumpkins.....  | 4.00     |
|  | <hr/>    |
|  | \$231.56 |

N. HITCHCOCK.

*Deerfield, Mass., Sept., 1861.*

FINE PEARS.—The finest collection of pears we have seen this autumn were sent us by OZIAS MORSE, Esq., and were grown in his grounds in Cambridge, near Porter's Station. The basket was ample, and the fruit as high flavored and perfect as any we saw last year. Some months since, we spoke of having visited his grounds, of the excellent condition of his trees, and promise of fruit which they then afforded. The liberal present now before us is the fruition of that promise. Mr. Morse well understands the culture of the pear, and is giving many excellent examples for those not so skilful as himself.



## CRANBERRIES ON HIGH LAND.

For several years past, we have been attempting to raise cranberries on high land. Our first attempt was upon a dry, sandy loam land, that had been allowed to mature the seeds of a variety of weeds indefinitely before the land came into our possession. The plants grew well enough on this soil, but the incessant pulling of weeds so often disturbed the young "runners," that they did not have time to get a firm hold of the soil, and of course did not succeed well. This experiment was continued two or three years, and then abandoned. The next attempt was upon a piece of underdrained "swale" land; that is, land such as we have all over New England, bordering meadows, or the low "runs" among the uplands. The piece we selected was of the latter description, where the surplus water found its way out from a series of gently swelling hills. It would have been good corn land in a moderately dry season. The water, however, before it was drained, remained in it late enough in the spring to cause it to send up rushes, and in some places, flags, and a variety of rank meadow grasses. This was its condition when selected for cranberries. Six months later it was thoroughly drained by the use of tile laid four feet deep, which resulted in bringing in timothy and red top, without the aid of plowing or adding seed—on three sides of the piece there being a stout growth of both these grasses.

The process was to cover the rushes and meadow grass with coarse gravel, so that none of it could be seen. A little fine meadow muck, say fifteen bushels to the rod, was spread over the gravel, and the plants set about one foot apart in each direction. The plants were taken from a common cranberry meadow, and set from the middle to the last of April. The only thing done to them since has been to keep out all weeds and grass that have made their appearance; and this must be done with care, so as not to disturb the sod or plant, which was originally set, or the "runners" which have started out from it.

On the single rod where the plants have been set *three* years, in the first week of September, we gathered *one bushel of cranberries*, and we have seen but a single lot in market that compares with them in size. On a rod set two years, *eight* quarts were gathered. These amounts were in clean, sound cranberries, with probably not an imperfect one among them, as they were gathered by hand.

A cranberry patch has a value beside that found in its fruit, as there is scarcely any thing more ornamental in the vicinity of the dwelling. The plants have a dark, but brilliant green, in the spring and early summer, and when in blossom, at a little distance, present the appearance of a

slight fall of snow upon them—and on a nearer approach, the delicate line of pink on the blossom gives them a very beautiful appearance. They remain in this condition for more than two weeks. In the autumn, when the leaves have matured, they present various shades of red, and thus remain pleasant and inviting to the eye until snow covers them for the winter.

From observation and careful inquiry through several years, we are satisfied that not more than one family in ten in Massachusetts ever have a cranberry in the house. They are only common with a comparatively few. In our opinion, this ought not to be so, because we are convinced that their usefulness does not cease with the mere gratification of the taste. Physicians inform us that they possess valuable medicinal qualities, which give tone and healthy action to the liver and kidneys, and favor the removal of vitiated matters which have become useless and injurious to the system.

The preparation of the cranberry for the table, requires a good deal of sugar, to be sure—but sugar is an exceedingly nutritious and healthy article when taken as a portion of the meal, and is undoubtedly, so far as economy is concerned, cheaper than meat.

We hope others will try the experiment of raising the cranberry on high land, so as to establish the fact that such culture is feasible, and that all our people may then have cranberries at hand for their pies and tarts, and as a condiment for their roasted turkey on Thanksgiving Day, or for their roasted mutton, when they are so fortunate as to have it.

## TO KEEP FOWLS FREE FROM VERMIN.

The *London Field* has an article on this subject from the pen of John Douglas, professional breeder, from which we make the following brief extract. The "black sulphur" mentioned, we suppose, is the black sulphuret of mercury, and may be obtained at the apothecaries.

"There are several kinds that infest the hen. By attending to the following remedy, they will be entirely kept clear. First of all, if in confinement in the dusty corner of a poultry-house, mix about half a pound of black sulphur among the sand and lime, that they dust in. This will both keep them free from parasites, and give the feathers a glossy appearance. If infested with the insects, damp the skin under the feathers with a little water, then sprinkle a little black sulphur on the skin. Let a bird be covered with the insects, and they will disappear in the course of twelve hours. Also, previous to setting a hen, if the nest be slightly sprinkled with the sulphur, there is no fear of the hen being annoyed during incubation, neither will the chickens be annoyed by them. Many a fine hatched brood pines away and dies through nothing else, and no one knows the cause. Having had an ostrich under my care

that was pining, I looked into his feathers and observed thousands of the parasites. I employed tobacco-water, also lime-water, under my then master's orders, to no effect. In his absence, I well damped him, and sprinkled him under the feathers with black sulphur, when next day they were examined with a microscope, and every one was dead. Having had some macaws, also parrots that were addicted to biting off their feathers, I employed the black sulphur by well syringing them with water, then sprinkling the sulphur over their skins. If tame, sponge the skins, then rub gently with the points of the fingers, with the sulphur, every other day, for about a fortnight, when the parrot or macaw will cease to destroy his plumage. It is not a remedy which has not been proved, for I have used it these two years with success."

#### MEMORY OF AN ELEPHANT.

A female elephant belonging to a gentleman in Calcutta, who was ordered from the upper country to Chittagong, in the route thither, broke loose from her keeper, and making her way to the woods, was lost. The keeper made every excuse to vindicate himself, which the master of the animal would not listen to, but branded the man with carelessness or something worse; for it was supposed that he had sold the elephant. He was tried for it and condemned to work on the roads for life, and his wife and children sold as slaves. About twelve years afterwards, this man, who was well known to be acquainted with breaking elephants, was sent into the country with a party to assist in catching wild ones. They came upon a herd, and this man fancied he saw among a group his long-lost elephant, for which he had been condemned. Having reached the animal, he spoke to her, when she immediately recognized his voice; she waved her trunk in air in token of salutation, and knelt down and allowed him to mount her neck. She afterwards assisted in taking other elephants, and decoyed three young ones to which she had given birth in her absence. The keeper returned, and the singular circumstance attending the recovery being told, he regained his character; and as a recompense for his sufferings, had a pension settled on him for life. This elephant was afterward in possession of Warren Hastings, when Governor General of Hindostan.

FLAX COTTON.—The New York Evening Post of the 16th says:—

If King Cotton is not likely to be dethroned by his uncrowned rival, Flax, he is destined to get a severe poke in the ribs, which will make his seat uneasy. We have seen several specimens of the new commodity to-day, which come nearer to the genuine article than any that have yet fallen under our notice. They are to be seen at the office of Latson & Abbott, No. 159 Water Street, where fabrics of the same material are also to be inspected. Flannel, calico, drilling, and thread have all been made of the new flax fibre, and with a remarkable degree of perfection. New processes for preparing the fibre give great encouragement to those who are embarked in the business. Mills for the manufacture have already been erected in New York and in New England,

and will soon be in operation, not only working the flax by itself into fabrics, but working it in connection with wool and cotton. American ingenuity is about to succeed in a line in which the English and French have hitherto failed.

*For the New England Farmer.*

#### WOODLAND SCENES---No. 2.

"Come out to the pines, to-day!  
Come out to the grand old wood!  
And hear what the voices of Nature say  
In the forest solitude."

Such is the invitation of a charming American poetess; and whose heart is so hard that he cannot respond to the call, at a season when all nature, animate and inanimate, is full of life and beauty? If the reader remembers, my first article left us standing upon a huge rock, in the heart of a large tract of woodland; and as I then promised to say something about the history of these rocks, or boulders, I will fulfil the promise before proceeding on our ramble.

Modern geological research has discovered the fact that the superficial covering of the solid rocks which form the crust of the earth, was once solid rock itself, that the materials of which it is composed—gravel, sand, loam, clay, hard-pan, pebbles and broken pieces of rock of all sizes—have been brought to their present state of decomposition and fineness, by the combined agencies of heat and cold, rain, ocean waves and currents, rivers, ground ice, glaciers, icebergs, earthquakes and volcanoes; and that these agencies have been at work, either separately or together, and perhaps with different degrees of intensity, for a length of time extending so far back into the past that the human mind cannot grasp or measure it. And the fact is also equally certain that the process by which the rocks, of all kinds, have been dissolved or disintegrated, and ground to dust, is now going on in different parts of the world; and that new rocks are being formed at the bottom of the present ocean, and in the subterranean regions of the nether world, in the same manner as the older rocks were formed.

So the farmer can see what a long and wonderful process has been going on for his benefit, and that of every other inhabitant of terra firma; for without such a process there would have been no soil in which to cultivate his crops, no vegetation of any kind, nothing but naked, barren rock, over all the dry land and the floor of the ocean.

During a long period of time, in this unknown past, which the geologists have named the drift period, deposits of sand, gravel, hard-pan, pebbles and boulders or erratics, variously mingled, were made over the northern parts of Europe and North America. In this country, these loose materials, which had been accumulating previous to the drift period, appear to have been brought from the North, or from a point a little to the west of north. The solid rocks, both of aqueous and igneous origin, have been worn down, rounded and smoothed, and in numerous instances, furrowed and striated, or scratched, by the transport of drift material over them. These furrows or grooves, and striæ, can be seen in many places in New England, and especially in Vermont. Sometimes the furrows are from 12 to 20 inches

wide, and 3 to 4 inches deep; and from that down to the finest scratch. In the town of Littleton, Mass., these furrows are plainly to be seen on a hill of gneiss.

In North America these furrows and striæ, with but very little variation, all run in the same direction—north and south, or a little east of south—are very straight, and perfectly parallel to each other. This fact proves that the drift material was forced along and deposited by some solid body; accordingly all the existing theories upon the great problem—"What was the agency which dispersed the drift, and wore down, smoothed and furrowed the rocky floor over which the materials moved"—suppose that ice, either in the form of glaciers or icebergs, was the principal agent.

"The *iceberg theory* supposes that the drift country was submerged below the tops of the mountains not long before the drift agency, and that a polar current floated down icebergs which were loaded with the materials of the drift, and which, melting during their progress into a warmer latitude, strewed the drift along their course, and striated the rocks at the bottom of the sea by the fragments which were frozen into them. This theory has the great advantage of introducing no more violent agencies than are now in operation. Such a polar current now exists, bearing icebergs, some of which are loaded with gravel and boulders, into warmer regions.

"The *theory of elevations* supposes that the drift countries were submerged, and that their central regions were subject to violent earthquakes and elevations, oft repeated through a succession of ages; that these convulsions propelled over the northern portions of the globe enormous waves, which bore along immense icebergs of the polar regions, and strewed the pre-existing loose materials of the surface far to the south of their former position; that immense masses of such materials received a portion of the impulse, and acted on the rocks beneath in the same manner as glaciers.

"The *glacier theory* supposes that by some causes, which it does not profess to demonstrate, a refrigeration of the climate covered the drift region with glaciers, and at length with a vast glacial sheet several thousand feet thick; that in Europe the centre of origin was in the Scandinavian Mountains, (between Sweden and Norway,) whence the glaciers proceeded outward in all directions, increasing until they reached the limits of the drift agency; that in North America the glaciers originated in or near the Arctic regions, proceeding in a southerly direction, because in this direction only were they free to move, and increasing until they formed a glacial sheet 5000 feet thick; that vicissitudes of climate during the long periods of drift agency, caused retreats and advances of the glacial sheet in directions not exactly coincident."

The above quotations are from Gray and Adams' *Elements of Geology*—a work which I would recommend, together with the more extensive works of Lyell and Hitchcock, to every one who wishes to become acquainted with this important and deeply interesting science.

These theories, the mere outlines of which have been given, all have their objections, but to give them a satisfactory explanation, even if it were possible, would require more space than belongs

to me in this paper. It is very probable that all the agencies alluded to in these theories were employed at different times during the drift period, in bringing about the changes which then took place upon the surface of the drift regions.

During the pleistocene period, or that age of the world which followed the drift period, the northern part of North America remained submerged to the depth of 400 or 500 feet below its present altitude, for a great length of time; and in those parts of the country which were then below the waters of the ocean, the original deposit of drift has been essentially modified, and is now called *altered drift*. Many of the rounded hills and knolls, and long, narrow ridges of sand and gravel which diversify the landscape in many parts of New England, belong to this class of drift. And it is probable that pebbles of all sizes, and many of the smaller erratics, were then moved from their original localities and rolled about by the waves and currents of the ocean. But I do not believe that this enormous boulder, whose history, with that of its contemporaries, I have faintly traced, has been moved since it was deposited here by iceberg or glacier many thousands and perhaps millions of years ago.

So much for science, speculation, and boulders. Now let us continue our walk, or night will overtake us in the woods. We soon entered a narrow valley through which a small brook discharged itself into the pond. The ground was quite swampy along its margin, and was covered with such a thick growth of alders, elders, birches, maples and grape vines that we could see but a few feet in advance. Making our way up the stream as best we could, we came to an ancient dam which had been built across the brook, probably by some of the first settlers. What motive could induce them to build a dam in the midst of the forest, is not apparent, unless it was to destroy the wood which grows on a swamp from which the brook proceeds. Perhaps the swamp was then a cranberry meadow, in which case the motive for erecting the dam, for the purpose of flowing it at pleasure, was a very sensible one.

The valley in this place is only two or three rods in width, and the dam which extends across it is about 5 feet wide, and 6 or 7 feet high; and is built of earth and stones. The stream has forced a passage beneath—making strange and hollow, yet pleasing murmurs among the rocks—and it has fallen through in several places. The trees now growing upon it are of a size sufficiently large to prove that it must have been built "a long time ago." Crossing dry-shod over this dam, which makes a convenient passage for pedestrians like ourselves, we next passed through a dense sapling growth of maple, oak and walnut, and came to an old road which once led to the pond but is now partially grown up; following this a short distance brought us to a lot of 8 or 10 acres in extent, which had been cleared two years before. The wood which had been removed was mostly white pine, of a large size, and the little seedlings, oaks and other deciduous trees which usually spring up where a forest of pines has stood, were yet quite small and rather scattering, but the open spaces were covered with a soft kind of grass, very green and luxuriant; and where this was wanting the low blueberry bushes, which had so long been buried in the

shadows of the forest, were flourishing, loaded down with large, luscious fruit.

Passing over this

"Sunny islet opened in the wood,"

we entered a stately growth of white pine, of the same size, probably, as the one which had been removed from the open space. Here, upon a moss-covered rock, we again seated ourselves for a few moments to listen to the sad—ah, no! not sad, but mysterious moaning of the wind in the tops of the trees far above us. Has any one ever explained the hidden charm, the mystery of these murmurs—these sighings, which are ever heard in the pine forest? Or is this a language of the wildwood which can never be interpreted?

Some poet, I know not his name, has made the noble pine thus sing of his lady-love—the gentle breeze of heaven:

"At midnight, as I stand asleep,  
While constellations stream above,  
I hear her up the mountain creep  
With sighs and whispers full of love:  
Then in my arms she gently lies,  
And breathes mysterious melodies,  
And with her childlike, winning ways,  
Among my leaves and branches plays.

\* \* \* \*

Sometimes, when parched in summer noon,  
She brings me odors from the east,  
And draws a cloud before the sun,  
And fans me into peaceful rest;  
In my siesta while I drowse,  
She rustling slips amid my boughs,  
And teases me, the while that I  
In dreary whispers make reply.

Sometimes, as if in fierce despair,  
The tears of passion on her face,  
With tempest locks and angry hair,  
She round me flings her wild embrace,  
And sobs, and moans, and madly storms,  
And struggles in my aching arms,  
Until, the wild convulsion past,  
She falls away to sleep at last."

In my first article, mention was made of the azalea, or something which I thought resembled it, and the Editor inquires, "was it the clematis?" The Swamp Pink, Wild Honeysuckle, or *Azalea viscosa*, blossoms in June, and as it was in the middle of July when I passed through the woods and saw its flowers still hanging upon their stems, I was puzzled, and thought at the time, that it might be something with which I was unacquainted, but am now sure that it was the azalea. For some reason, the shrubs which I saw had kept in bloom longer than usual, but at the time above mentioned the flowers had begun to drop off, although their fragrance was not perceptibly diminished. There is another species of this flowering shrub, the *Azalea nudiflora*—having the same common name, "Swamp Pink"—with fine pink, and sometimes deep red flowers, which are exceedingly beautiful and fragrant.

South Groton, Sept., 1861. L. S. WHITE.

HINGHAM AGRICULTURAL FAIR.—We were disappointed in not being able to attend this fair. It is reported as a brilliant one, excelling in most of its departments, and especially in fruit. The cattle pens were more than usually attractive. Sheep—all of fair, and some of superior appearance—were shown in large numbers. The exhibition of cattle was particularly fine. Mr. T. T. Bouve

showed a Durham cow which gave during the month of June 581½ quarts of milk, producing 35 pounds of butter. In 1858 she gave 22 quarts a day—so said.

#### GREAT DESTRUCTION OF SHEEP BY A BEAR.

The Ottawa *Citizen* is responsible for the following:

For a few years back a bear has infested the farms in the 2d Concession South March, County of Carleton, and has destroyed much stock—calves, sheep and pigs. This spring he has been very destructive, killing and injuring on four farms convenient to each other, thirty-five sheep and a large hog. On the night of the 2d of May he visited the farm of Mr. Wm. McLaughlan, and tore open a strong stable door where Mr. McL. had his sheep and a span of horses enclosed for safety; he injured five of the sheep badly, and carried off one. The next day Mr. McL. set a gun in the bush where the bear had left a part of the sheep he had carried off. In a few hours afterwards a report of a gun was heard, when four men started off in pursuit of bruin with axes. They soon came in view of his bearship, who showed not the least sign of fear, and proved to be an enormous large male, weighing nearly 400 lbs. After a little time the bear started off at a brisk pace, and an animated chase ensued, which lasted an hour and a half, when suddenly in a very thick part of the bush, he stood at bay, with every demonstration of anger. The men now closed on him, when one of them very skillfully gave him a heavy blow of an axe on the head, which so stunned him that he was easily dispatched.

THE RISE OF THE ROTHSCHILDS.—When George III. came to the throne there was a little boy at Frankfort who did not dream of ever having anything to do, personally, with the Sovereigns of Europe. He was in the first stages of training for the Jewish priesthood. His name was Meyer Anselm Rothschild. For some reason or other he was placed in a counting-house at Hanover, and he soon discovered what he was fit for. He began humbly as an exchange-broker, and went on to the banker of Landgrave, of Hesse, whose private fortune he saved by his shrewdness, when Napoleon overran Germany. How he left a large fortune and a commercial character of the highest order, and how his five sons settled in five great cities of Europe, and have had more authority over the war, and peace, and the destinies of nations, than the Sovereigns themselves, the world pretty well knows. Despotism must be dependent upon money-lenders, unless they are free from debt, and can command unlimited revenues for untold purposes,—which is never true of despotic Sovereigns.

THE CURCULIO AND THE GRAPE.—In examining a small vineyard lately, we found one bunch of grapes, every berry of which was marked with the crescent of the curculio. We saw it on no others. We brought the bunch away, and the larvae are now undergoing their change. We shall soon know what they are.—*Horticulturist*.

### WORCESTER AGRICULTURAL SHOW.

The *Forty-Third* annual exhibition of the *Worcester Central Agricultural Society* commenced on Thursday of last week, and continued through Friday. The main exhibition was concluded the first day, and the second day was devoted to a show of horse flesh. The exhibition was very large in nearly every department, the show of cattle and sheep being very much more extensive and better in every way, than that of last year.

The extent of the exhibition may be judged from the number of entries of blood stock. There were 12 entries of Ayrshires—3 bulls, 3 cows and 6 heifers; North Devons—7 bulls, 2 cows, 8 heifers; Durhams—4 bulls, 9 cows, 6 heifers; Jerseys—4 bulls, 5 cows, 7 heifers; bulls, 7; bull calves, 5; milch cows, 13; heifers with calf, 18; other heifers, 34; working oxen, 25; working steers, 6; steers of two years, 8; yearling steers, 10; calves, 3; fat cattle—4 oxen, 4 cows; sheep—12 bucks, 14 ewes; swine—8 boars, 7 sows, 7 pens of pigs; poultry—turkeys, 4 entries; ducks, 5; geese, 4; common fowls, 27 lots. "Sundry animals not elsewhere entered," 12, including a trained dog, three English ferrets, and a considerable number of rabbits. Of stallions there were 16 entries; horses for all purposes, 12; matched carriage horses, 5; brood mares and colts, 16; gelding colts, 6; filly colts, 10.

About 400 sat down to dinner. When that was through with, the President of the Society, WILLIAM S. LINCOLN, spoke to them encouragingly of the condition and prospects of the Society, and introduced Dr. BARTLETT, of Chelmsford, the delegate from the State Board, who said the exhibition of cattle that day was the *best he had ever seen*. Dr. LORING, of Salem, next spoke, and congratulated the farmers of Worcester upon their display of cattle. AMASA WALKER, of North Brookfield, spoke of the advantage of an agricultural life.

The first exercise on the morning of the second day was a trial of mowing machines, for which there were eight entries. The remainder of the morning was occupied in the exhibition of horses. There were no speeches at the dinner-table to-day.

**DOGS.**—We have recently received two or three articles on the subject of dogs, in addition to those already published, but it does not seem necessary to us to continue the discussion further. "J. C. D.," a former correspondent, in a mild and well written article says:

I must repeat my conviction that the present dog law of Massachusetts, *if enforced as it should be*, is admirably calculated to remove all reasonable grounds of complaint. Over and above the ample provisions for the confinement and destruction of dangerous or mischievous dogs, and for

indemnifying all who may suffer injury or loss by means of them, I claim an especial merit for the clause providing for the registration and taxation of dogs; inasmuch as, if enforced, it would prevent the keeping, and still more the breeding of animals, which being considered worthless even by their owners, are especially likely to be a nuisance to the public, and to bring disgrace on their more valued, and therefore better cared for brethren.

### EXTRACTS AND REPLIES.

#### DRAINING A SWAMP.

I have begun a job that I am not well acquainted with, and wish you would direct me. I have a swamp hole of about three-fourths of an acre, and there is a chance to drain it by cutting through a little hill. What kind of a drain shall I make? I have stones that I would like to use; can they be made into a drain so that the ditch will not choke up? How would you manage it?

A CONSTANT READER.

Taunton, Sept., 1861.

**REMARKS.**—We have omitted some of your inquiries, because it is impossible for us to answer without being on the ground. We should advise you to use tile instead of stone, as the tile if well laid, will probably last a century, without filling up; while in such ground, a stone drain would be likely to get choked in three or four years.

#### RACCOONS.

In answer to the inquiry of your correspondent, Mr. Whitaker, I will tell you how I trap raccoons without keeping a dog to hunt them. I take a fox trap and set it on a level spot, so that it will set firm where the 'coons most haunt, which is nearest to a brook or run; I take a piece of dry codfish, or a string of trouts, and suspend by a string and slanting stake about two feet above the trap. In this way I generally take one the first time they come along. The trap needs no covering.

A SUBSCRIBER.

Danbury, N. H., Sept., 1861.

#### WINTER BARLEY.

In the *Farmer* of Aug. 31st I saw an account of some winter barley raised by Mr. J. B. FARMER. Can you inform me whether I can get a bushel, and what the price will be?

J. H. PARKER.

Waterville, Me., Sept., 1861.

**REMARKS.**—Mr. Farmer sold all the seed he could spare to Messrs. NOURSE & Co., and they have distributed it among some thirty of their customers, at \$3 per bushel. We cannot tell you where it can be obtained.

#### PREMIUMS AT CATTLE SHOWS.

As the season is again come round, when these shows are to be holden in all the counties of the State, for the purpose, as is presumed, of improving the stock of cattle kept on our farms, may it not be proper to inquire, for a moment, whether the best method has been adopted of effecting the desired object? A reward of a few dollars is

offered and awarded for the best cow exhibited; seldom with any restriction upon the use to be made of the animal after the Show. How does such an award tend to improve our stock? Should there not be some requisition made on the owners of such premium animals, and obligation placed upon them to rear the progeny of such cows, always taking care that they associate only with animals of the best class?

September, 1861.

ESSEX.

#### THE RAPIDITY OF GROWTH IN FUNGI.

Mr. Ward, in his work "On the Growth of Plants in Closely-glazed Cases," says of it: "I had been struck with the published accounts of the extraordinary growth of the *phallus impudicus*. I therefore procured three or four specimens in an undeveloped state, and placed them in a small glazed case. All but one grew during my temporary absence from home. I was determined not to lose sight of the last specimen; and observing one evening that there was a small rent in the volva, indicating the approaching development of the plant, I watched it all night, and at 8 o'clock in the morning the summit of the pileus began to push through the jelly-like matter with which it was surrounded. In the course of 25 minutes it shot up three inches, and attained its full elevation of four inches in one hour and a half. Marvellous are the accounts of the rapid growth of the cells in the fungi; but in the above instance it cannot for a moment be imagined that there was any increase in the number of cells, but merely an elongation of the erectile tissue of the plant." The force developed by this rapid growth and increase of the cells of fungi is truly astonishing. M. Bulliard relates that on placing a fungus within a glass vessel the plant expanded so rapidly that it shattered the glass to pieces with an explosive detonation as loud as that of a pistol; while Dr. Carpenter, in his *Elements of Physiology*, mentions that "in the neighborhood of Basingstoke a paving stone, measuring 21 in. square, and weighing 83 lb., was completely raised an inch and a half out of its bed by a mass of toadstools of from six to seven inches in diameter, nearly the whole pavement of the town being heaved up by the same cause." Every one has heard of the portentous growth of the fungi in a gentleman's cellar, produced by the decomposing contents of a wine cask, which, being too sweet for immediate use, was allowed to stand unmolested for several years. The door in this case was blocked up and barricaded by the monstrous growth, and when forcible entrance was obtained the whole cellar was found completely filled, the cask which had caused the vegetable revel, drained of its contents, being triumphantly elevated to the roof, as it were upon the shoulders of the bacchanalian fungi.—*Macmillan's Footnotes from the Page of Nature.*

**THE JEALOUSY OF A DOG.**—Some time since, a gentleman living on the Hudson, had a fine Newfoundland dog, who was a great favorite with the family. While this dog was confined in the yard, a pet lamb was given to one of the children, which the former soon discovered to be sharing a great portion of those caresses which he had been in the habit of receiving. This circumstance pro-

duced so great an effect on the poor animal that he fretted, and became extremely unwell, and refused to eat. Thinking that exercise might be of use to him, he was let loose. No sooner was this done, than the dog watched his opportunity, and seized the lamb in his mouth. He was seen conveying it down a lane, about a quarter of a mile from his master's house, at the bottom of which the Hudson river flowed. On arriving at it, he held the lamb under water till it was drowned, and thus effectually got rid of his rival. On examining the lamb, it did not appear to have been bitten or otherwise injured; and it might also be supposed that the dog had chosen the easiest death in removing the object of his dislike.

#### HARVEST HYMN.

BY GEORGE D. PRENTICE.

At Carmel's mount the prophet laid  
His offering on the altar-stone,  
And fire descended from the skies,  
And round the holy altar shone;  
And thus, when Spring went smiling past,  
Our offerings on the earth were cast,  
And God's own blessing has come down,  
Our sacrifice of faith to crown.

No conqueror o'er our fields has gone,  
To blast with war our Summer bowers,  
And stain with blood of woe and guilt,  
The soil that giveth life to flowers;  
But morning dews and evening rains  
Have fallen on our beauteous plains,  
And earth, through all her realms abroad,  
Gives back the image of her God.

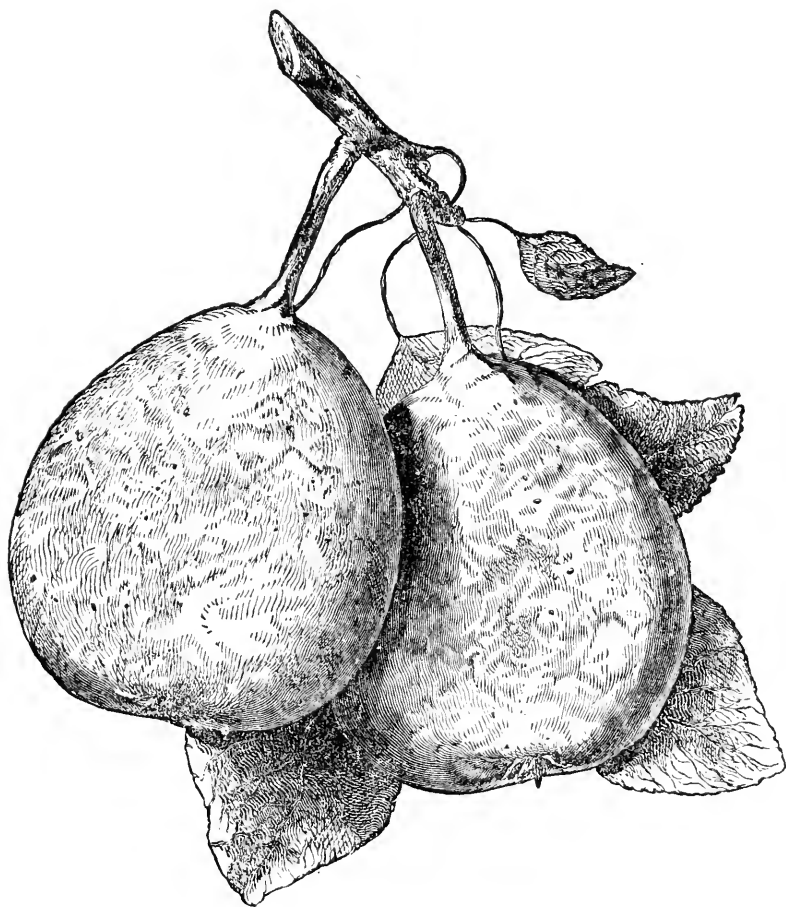
Bright with the Autumn's richest tints,  
Each hill lifts up its head on high,  
And spreads its fruits and blossoms out,  
An offering meet beneath the sky;  
And hill, and plain, and vale, and grove,  
Join in the sacrifice of love,  
And wind, and stream, and lake, and sea,  
Lift high their hymns of ecstasy.

It is the festival of earth—

The flame of love o'er nature burns,  
And to the holy heavens goes up  
Like incense from a thousand urns;  
And, O, let man's impassioned voice,  
With nature's self in song rejoice,  
Until the blended notes of love  
Ring from the temple-arch above.

**STRIKING ROSE CUTTINGS.**—Mr. Peter B. Mead, editor of the *Horticulturist*, of New York, spoke of a new method of striking rose cuttings: Take a pan or saucer, fill two-thirds with sand, and then fill up with water; prepare the cutting in the ordinary way, cutting under a bud or an eye, and place it in this sand, and it will root in a much less time and with less failures than in any other way.—*Horticulturist.*

**NORFOLK COUNTY SOCIETY.**—Here they had good weather and a good time. The exhibition of fruit probably surpassed that at any other show this season. Col. WILDER had one hundred varieties of pears on the table. The display of flowers was profuse and beautiful. They had a drawing, plowing and spading match. Address by Prof. AGASSIZ.



THE BLOODGOOD PEAR.

This pear deserves to become more common in our gardens than it now is. We know of a single tree, perhaps fifteen to twenty years old, that pays an annual interest on some one to two hundred dollars. The original of the design which we give above, grew in the grounds of our old friend VANDINE, at Cambridgeport, a gentleman deeply imbued with a love of the useful and beautiful. DOWNING'S description of this pear, which we copy below, is better than any we can give.

The Bloodgood is the highest flavored of all early pears, and deserves a place even in the smallest garden. It was named from the circumstance of its having been brought into notice about 1835, by the late James Bloodgood, nurseryman, Flushing, L. I. The sort was brought to that nursery as a new variety, without a name however, by some person on Long Island, unknown to Mr. B., who was never able afterward to trace its history further. The tree is rather

short jointed, with deep reddish brown wood, grows moderately fast, and bears early and regularly. The fruit, like that of all early pears, is better if ripened in the house. It surpasses every European variety of the same season, and together with the Dearborn's Seedling, another native sort, will supplant in all our gardens the Jargonelle, and all inferior early pears.

Fruit of medium size, turbinate, inclining to obovate, thickening very abruptly into the stalk. Skin yellow, sprinkled with russet dots, and network markings, giving it a russetty look on one side. Calyx strong, open, set almost without depression. Stalk obliquely inserted, without depression, short, dark brown, fleshy at its base. Flesh yellowish-white, buttery and melting, with a rich, sugary, highly aromatic flavor. The thin skin has a musky perfume. Core small. Ripe from the 25th of July to the 10th of August.

For the New England Farmer.

VINERIES---BARK LICE---GRAFTING  
THE GRAPE.

MR. EDITOR:—I am blessed with a vinery, and an abundant crop of luscious fruit of several varieties; and I pride myself on my success generally, as it is all from my own honest personal labor and handicraft. But there is one drawback to my complete victory, just as the day is almost won, and the bunches ripening. I know that not a drop of water should touch the fruit after the 1st of August, when it has attained its full proportions and has begun to color. But in these northern latitudes, rain *will* come with our equinoctial of September, and it will pour down pretty frequently and freely in the course of October and November, and then drip, drip, drip it will, through ventilators and every chink in glass roofs. And the fruit cracks, and rots, and mildews, in spite of sulphur, quicklime, and every appliance I can think of; particularly the most delicate and nectarian Muscats. I know of a remedy, radical but troublesome and costly. It is to suppress all present ventilators in the roof, and to open new ones in the back wall, close to apex. And I beg all fortunate ones who have their vineries yet in embryo in their creative minds, to profit by my experience; and although taught by all the most approved *Treatises on the Culture of the Grape*, &c., to avoid *this one error at least*, of the learned *Treatises* in question. I now beg of your able correspondents a palliative for this evil, if any there be, before resorting to a removal of my vinery.

In this French country, I cannot find the French name of the Black Hamburg. Can your Boston importing nurserymen tell? The great Downing, the able and reliable Chorlton, (my *vade mecum*), do not say.

In return for the favors asked, will you allow me to impart to your readers, Mr. Editor, a few bits of *proved* experience: Soft soap and sulphur well mixed, and rubbed on apple trees in the spring, will destroy the bark lice; when they have resisted the soap mixed with ashes or with lime.

Cleft-grafting of the grape, just above the root, when the sap has thickened by the growth of two or three leaves to each bud, is a pretty operation, and almost invariably successful *under glass*. I have not succeeded out doors. Draw the soil around and above the graft, leaving but one bud to the light; and, as of course, in a well-regulated, well-watered therefore, vinery, the soil around the graft will remain moist until the shoot has grown up to the top of the wall, and the graft will even throw out new roots of its own before the summer is half gone. And the next season will reward you by an improved product.

In a strong tub or vat, dissolve sulphate of copper or of zinc, in the proportion of one pound to each couple of buckets of water, and soak therein shingles for a week, garden sticks and poles for a fortnight, fence-posts for three or four weeks, and you will thereby make them waterproof, metallic, and four times as durable and lasting as they would be without that cheap and simple preparation.

Half an inch thick of salt, sprinkled on your asparagus bed, and on your currant and goose-

berry bushes, as soon as the snow disappears in spring, besides forking in old manure, will do wonders. It creates a spontaneous growth of "giant" asparagus and "cherry" currants, and wards off the mildew.

The spunk that lines the inside of the agaric commonly called puffball, which grows in old meadows, will stop the most obstinate bleeding. A very powerful styptic.

I am *proving* some other important items of knowledge, Mr. Editor, but as I do not wish to deceive other as I have myself been deceived sometimes by newspaper and even book (!) recipes, I forbear, for the present, any further teaching. I have, for instance, ascertained that the *ringing* and *wiring* of the grape to hasten maturity, so much written about sometime ago, is a humbug and a delusion.

Montreal, Oct. 9. AN OLD SUBSCRIBER.

THE ADIRONDAC GRAPE.

At the recent annual exhibition of the *Montreal Horticultural Society* JOHN W. BAILEY, Esq., of Plattsburg, N. Y., presented a new grape, which the *Montreal Herald* says Mr. Bailey discovered at the foot of the Adirondac Mountains;—that it is a native grape which ripens *fifteen* days before any other, and is decidedly of better quality, possessing a most delicious flavor.

The editor of the *Burlington Sentinel* has recently received some of the grapes, and after eating them, says he is "induced to think highly of them,"—and that "they are a dark colored fruit, not quite black, with compact and fair looking bunches; the berries larger than those of the Delaware."

In a note accompanying the grapes, Mr. Bailey says:—

"I send you herewith a sample of my new grape, the '*Adirondac*.' . . . This sample grew on a layer and on the ground, and is deficient of its natural high flavor, but it will give you some idea of its character. The bunches are fully as large as the Isabella, it ripens from the 5th to the 20th of September, or two weeks before any other good grape. The Delaware and Concord were just beginning to change color. The Isabella was perfectly green and about two-thirds grown. This must be the grape for the Northern States and Canada. It has fruited for five or six years, and always ripens as early as stated, or two weeks before any other good grape."

PLYMOUTH COUNTY SOCIETY.—The following are the names of the persons elected October 3, as officers of this Society for 1861-2: CHAS. G. DAVIS, Plymouth, President; ALBERT FEARING, ALDEN S. BRADFORD, Vice Presidents; V. R. SWIFT, CHARLES GURNEY, HENRY A. NOYES, HORACE AMES, EPHRAIM B. THOMPSON, P. M. C. JONES, THOMAS AMES, CHARLES BURTON, N. TRIBOU, JOSEPH COBB, AUGUSTINE PRATT, Directors, or Trustees; WM. LATHAM, Secretary; JOSIUA E. CRANE, Treasurer.



#### A NEW VOLUME AND NEW PLANS.

In view of the fact that we have determined upon a radical change in the manner of conducting the business department of the NEW ENGLAND FARMER, and one which we desire thoroughly to explain to our subscribers, in the present time, although considerably earlier in the season than we have usually issued our prospectus for the ensuing year, is thought to be a favorable one for stating its peculiar features, and requesting the approbation and assistance of our readers.

The troubles through which our beloved country is passing, while fraught with the most momentous consequences to the liberty and prosperity of the nation, have already had a marked and decisive effect upon business relations. For many years, merchants, and business men generally, have conducted their business upon the credit system, and the result has naturally been panics, embarrassments, suspensions and failures. With the best intentions, the honest man may sometimes fail to meet his liabilities, while the rogue is only too eager to avail himself of the credit system to swindle his living out of his creditor. The fall of 1860 found us recovering from the great crash of 1857, and everything, apparently, in train for the prosecution of a most prosperous business, in every branch of industry and art. The events of the next few months, followed by the repudiation of the millions of dollars owed by Southern debtors, plunged the whole commercial system of the North into distress, though, fortunately, the utter ruin anticipated by many has been averted. But the immense sum thus irretrievably carried to account of "profit and loss" has, more effectually than years of preaching, and volumes of admonitions, opened the eyes of business men to the dangers of the credit system. The advantage of a cash basis is now fully appreciated, and while we see, with pleasure, that trade is slowly but healthfully increasing, we also note a not less important fact,—that credits have been, in many cases, entirely done away, and in all materially abridged.

One of the greatest, and perhaps the most important objection to the credit system, is, that by it the honest man is forced to pay a higher price for what he buys, in order to make up what the dealer loses on bad debts. This is evident to the most careless observer, for, were the grocer, for instance, to sell for cash only, he could, supposing his losses by bad debts to be five per cent. of his sales—and that is not an extravagant estimate, for the average of business done on credit,—sell his goods at a corresponding reduction from the prices he is compelled to ask, and still make as much *profit* as by the other system. This percentage is no small matter to the poor man, who can ill afford to be taxed to make up

for the shortcomings or dishonesty of those who may be better off than himself, and it often represents to the merchant the difference between poverty or a competence—between success or bankruptcy.

A little tract before us, contrasting the two systems of cash and credit, among other strong arguments uses the following :

"The credit system is a seductive and delusive one, flattering men into dangerous and uncertain paths, and ruining, for time and eternity, the prospects of thousands and tens of thousands. . . . By means of it, men become everywhere dependent on each other, and the fraud of one party, or the untoward speculations of another, may disarrange the whole, causing the wheels of commerce to come to a dead lock, and introducing, as its concomitants, misery and sorrow everywhere.

The cash system keeps you within your means. When you need a thing, you buy it—when you buy it, you pay for it. . . . It causes every man to depend upon his own resources. In matters of business, he is an independent man—and in matters of property, he is the *real* owner of what he holds."

Could a more forcible argument in favor of the "Pay as you go" system be urged?

Considerations like the above, and the observation of the struggles of other newspaper publishers to make a living upon the plan of sending their papers to every one who wished to subscribe, and then waiting years for their pay, or losing it entirely—together with a careful examination of our own business, and a comparison of our actual receipts with our just dues, have led us to adopt what is known among publishers as the

#### "CASH IN ADVANCE SYSTEM."

We prefer, if necessary, to do a small but *safe* business, rather than to have a mammoth list of subscribers, with the corresponding outlays for agents, collections, paper, and the thousand expenses of such an establishment, and, at the same time, find our receipts constantly falling below a fair percentage. We feel sure that none of our readers would object to our receiving a fair return for our labors, while the certainty that we are not working for the mere purpose of increasing the amount of debts already due us, can but add vigor to our endeavors to benefit our readers.

By the terms which we have decided upon, our readers will see that we do not desire to be the sole beneficiaries by this change, but that, while making a liberal allowance for payment and continuance to those who are indebted for the FARMER, we wish to retain and extend the benefit of the reduced prices to those who have thus far been the main-spring of our success—our advance-paying subscribers. We do not mean that they shall, hereafter, have the feeling that, in paying their subscription, they must look upon one-

one-quarter of it as devoted to balancing the loss upon their neighbor, who thinks his "patronage" an equivalent for his paper. A circular, which we shall shortly place in their hands, will more fully explain our offer to them.

We have, after carefully estimating the cost and probable expense of the new arrangement, adopted the following

#### TERMS OF SUBSCRIPTION.

##### Payment Invariably in Advance.

##### FOR THE WEEKLY N. E. FARMER.

|                                     |        |
|-------------------------------------|--------|
| 1 copy one year.....                | \$2,00 |
| 1 copy two years.....               | 3,00   |
| 2 copies one year.....              | 3,00   |
| 2 to 5 copies one year, each.....   | 1,50   |
| 6 to 10 copies one year, each.....  | 1,40   |
| 11 to 15 copies one year, each..... | 1,30   |

And at the rate of \$1,25 for each copy above this number.

##### FOR THE MONTHLY N. E. FARMER.

|                                    |        |
|------------------------------------|--------|
| 1 copy for one year.....           | \$1,00 |
| 1 copy for two years.....          | 1,60   |
| 2 to 5 copies one year, each.....  | 80     |
| 6 to 10 copies one year, each..... | 75     |

When clubs of ten or more are ordered, for either paper, we will send one free copy for every ten subscribers.

After the first of January, we shall discontinue all subscriptions remaining unpaid, and take means for the collection of all sums due us at that time.

The reduction in price we by no means intend shall precede a reduction in the interest or value of the NEW ENGLAND FARMER. On the contrary, we believe we shall be enabled to add to its attractions. It is too early, as yet, to mention any specific plans for the new volume, but we can promise that among the prominent features will be—A series of plans and engravings, eminently calculated, in beauty, convenience, fitness and economy of cost, to meet the needs of persons of moderate means; Agricultural communications from some of the best practical writers in New England;—and the general supervision and care that have made the paper so popular among the farmers and mechanics of New England.

Dear reader—we lay these our plans before you, and ask for your approval and assistance, feeling confident that we can give you, and all your friends whom you can induce to add their names to our list, a full equivalent *for value received*.

WHO ARE POLITE BOYS?—Being in the Dana Library one day, we observed many of the boys who came in, politely remove their hats at the door. We then thought, as we saw the sweet smile on their faces, and heard their pleasant, "good afternoon," these boys are well trained. They have been taught at home by their mothers that it is a mark of a well bred boy to take off

his hat, before coming into the parlor. For a boy so instructed to forget the respect due on entering a parlor, an audience-room, or library, or any room while occupied, would be in his estimation violating one of the very first principles which go to constitute a gentleman. We know all good boys wish to grow up and be called gentlemen. Wear the badge, then, boys, pleasing your friends in the removal of your hats and caps, previous to making your entrance either into a lecture or library room, or any other public place.—*Cambridge Chronicle*.

#### OUR CLOTHING AND DWELLING.

Professor Liebig has remarked that our clothing is to be regarded merely as an equivalent for a certain amount of food. Every observing farmer is aware that an animal, with a poor roof overhead, and open walls around its sides, requires a much larger quantity of food than an animal of the same age and weight which has comfortable lodging. This fact should suggest to every one who is aware of its practical force, the necessity of taking timely measures for securing the comfort of his domestic animals. The old adage—"A stitch in time saves nine," may be applied here with great pertinence, and if practiced, would be the means of effecting a very considerable saving in a department of farming which is usually attended with no inconsiderable show of trouble and expense.

A half-day's work, with a few boards, hammer, nails and saw, done before the approach of cold weather, would, in many cases, save a ton of good English hay, and secure more comfort to the cattle, and less labor in tending to their owner. So the same kind of labor about the house, in repairing loose windows, bulkheads, doors, and especially in making all tight about the foundation or underpinning, will save a cord or two of wood, keep the pump and potatoes from freezing, and render the whole house more comfortable throughout the winter. Attention to these little things, at the right moment, is not merely economical, but has a wonderful influence over the mind, tending to keep it placid, free from self-reproach, and securing that cheerful elasticity which may readily be seen in the face of him who has it.

WORCESTER NORTH SOCIETY.—The Ninth Exhibition of this Society commenced on the afternoon of the 24th September. There was a large show of neat stock, swine, poultry and horses, and about a dozen sheep. There were seven horse teams, five double and eight single ox teams. The show of fruit was meagre; that of vegetables exceedingly fine. This society seems to be well sustained, and is exerting a happy influence on the agricultural condition of the county.

*For the New England Farmer.*

## CORN AND COTTON--WHICH IS KING?

BY JUDGE FRENCH.

If any of our readers have a suspicion that there is any danger that England may interfere with the controversy between our government and its refractory subjects at the South, we ask their attention to a few facts which should satisfy them that rebellion will receive no aid from that quarter. The cry of the South has been, "Cotton is King, and we are his prophets." The argument was short and conclusive. England depends on her manufactures, and without cotton her mills must stop and her operatives starve. She can get cotton nowhere else; therefore she will raise the blockade, even at the cost of war with the United States, and take our cotton. The first and obvious answer to this argument may be found in the fact, that were England to attempt to force the blockade, she would indeed get a war but no cotton, for we must accept war if she thus forces it upon us, although we much prefer peace, and when war has commenced with England on the sea, how is the cotton crop to go out?

In addition to an efficient naval force now afloat, we should at once cover the ocean with our privateers to capture whatever British ships we could find. It requires a large fleet of merchantmen to transport the cotton crop, and supposing the cotton were all in bales and at Southern ports ready to ship, and a war going on with England, it would seem that freight and insurance would be rather high on cargoes outward bound. England wants cotton next winter and spring, if ever. After that, she can supply herself in India and elsewhere. The cotton is now on the plantations, most of it in the seed, for want of bagging to cover the bales. The cottonocracy dare not carry it to their ports ready for shipment in any quantity, because if they do, they know we shall seize it, and so supply the demand. How is England to obtain the cotton, even were she willing to make the attempt? No, England can have war, but cotton she cannot get in season for her most pressing need, with all the force she can command. Looking at the question then, as a mere question of expediency, England will not attempt to obtain cotton in that way. England looks to her own interest wisely. She has no wish to bow down to King Cotton, or to be dependent for the prosperity of her manufactures upon the caprice of rebels. Does not she see that, if the Confederates had now their ports open and under their own control, they would load their cotton with export duties enough to pay all the expenses of the rebellion? Cotton is too arbitrary a master to relieve English necessity without full pay. But the manufacturers of England are not planning

how to raise our blockade, or how to get American cotton. They are busily engaged, like good, industrious, thrifty people that they are, in schemes for doing without our cotton. They are organizing companies for raising cotton; they are building roads in India for transporting cotton, and sooner than they could get a crop from the Southern States by forcing the blockade, they will, through the arts of peace, supply their wants from other sources.

Then will John Bull disrespectfully twirl his fingers about his venerable nose at Mr. Jefferson Davis, with the suggestion that though cotton may be King of slaves, it is no longer King of Great Britain. And where will then be King Cotton? And what will then be the market value of King Cotton's colored bipeds in those days? In a single year of this blockade, the South will have upon its hands two crops of cotton and the demand for *one* essentially lessened, and a new supply springing up from abroad. Then, instead of demanding of the nations to come through blood and carnage and take their cotton at any cost, poor Rebellion, if he lives so long, will be very grateful for a blanket and pair of shoes for as much cotton as anybody will please to take.

No! Cotton is no longer King! Now let us look at a humbler and more republican power, Corn may not be King, but at least he is a prominent candidate for the Presidency of the Universe. Great is war, and very useful are soldiers; but by the arts of peace only can war be maintained, and the spade and the plow are more powerful than rifle and cannon.

Look at England once more. Though her agriculture is the best in the world, only about one-tenth of her population are engaged in it, and they cannot supply the whole with food. England imports *three hundred thousand bushels of grain a day*, throughout the year. This year her crop is short, and she needs much more. The *London Mark Lane Express* of September 16th estimates that England's crop of *wheat* this year will fall short of her supply by sixty-four millions of bushels, and that France will be compelled to purchase eighty millions of bushels. This enormous quantity of wheat, says that paper, will make nine thousand cargoes of one hundred and twenty-eight thousand bushels each! Spain, Holland and Belgium, it is said, will all be buyers, as well as France and England. France is already buying largely in American markets. From August 25th to August 28th, 800,000 bushels of wheat, and 9000 barrels of flour were shipped from New York to Havre. The American crop, though not very heavy, is abundant, far beyond our wants at the North. The English papers are exhorting their government and their merchants to look these facts in the face, and to secure at once, in

American markets, a supply before want stares them in the face, and it is too late to transport grain from the West.

Now look at these facts, and say what is the interest of England. Is it to interfere against the Union, and so get neither cotton nor corn—nothing but a war which shall desolate her commerce, or is it to help us to a speedy restoration of constitutional government, and the friendly reciprocities of peace with the nations?

Our belief is that the London *Times* is not the exponent of England's opinion, whether, as is whispered, that paper be owned by the Rothschilds or not. We believe the heart of England sympathizes with the North, with law and order, with the higher civilization, with Freedom, and freedom for all classes, without regard to color. Her government foolishly blundered in its haste to recognize the rebels as belligerents, which a decent regard for national courtesy would at least have postponed till the arrival out of our new minister, Mr. Adams. Still the English Government is usually wise and just, and her interest is with us in this controversy. Let us hope that she may soon see it to be so, and so conduct herself in this time when we are naturally over-sensitive to foreign criticism, that no jealousy or hatred shall spring up between nations connected by so many ties of interest, of feeling and of blood. And let the farmers, whose duty requires them to remain at home in this crisis, understand that the strength of the nation is with them, and that at this moment, the highest security our government has for the friendship of foreign nations, is in the abundance of the products of our soil.

*For the New England Farmer.*

#### THE BUNCE STRAWBERRY.

MR. EDITOR:—We notice in the *N. E. Farmer* for Sept. 21st some questions concerning the Bunce strawberry, as cultivated by us, with results as published in the *Farmer* for Aug. 24, which we will answer with pleasure.

The ground on which they grew is a granite soil, moderately moist, on the border of what was once a swamp hole, covered with bushes and brakes. It has never been trenched or subsoiled, but simply plowed with a common plow.

In 1859 it was planted with potatoes, manured lightly in the hill, with compost from the barn-cellar.

In the spring of 1860 it was plowed and harrowed, and in June furrowed; the furrows running north and south, three feet apart. We then spread compost from the barn-cellar in the furrows, probably at the rate of fifteen ox-cart loads to the acre, covering it with a hoe, leaving the ground level. Then set the plants about eighteen inches apart in the rows, and watered them two or three times, as the weather was very dry. Weeded them twice during the season, and left them unprotected through the winter, except a small

portion of the bed, and find those unprotected did the best.

Last May, (1861,) we made paths ten inches wide between the rows, taking up the plants with a fork of that width. Then, on the thirty square rods, we spread nine bushels of hen dung, (which cost us one shilling a bushel,) mixed with an equal quantity of wood ashes, which must be dry, for if wet and lumpy, they will injure the plants. Then cut away a few of the weakest plants, where they were very thick, with a sharp trowel, so as not to disturb the roots of those left, which was all we did to them till we gathered the berries.

We never have practiced cutting the runners, as we wished to get what plants we could, and do not know what effect it would have on them.

What we set last spring, we furrowed four feet apart, and set a double row to each furrow, which we think will be better than three feet with a single row, as it is no more work to cultivate, and there will be more surface covered with plants.

BUNCE & Co.

*Westford, Mass., Sept. 25, 1861.*

*For the New England Farmer.*

#### THE BAROMETER.

MR. EDITOR:—For the past few years I have been a constant observer of this instrument, not only for my own instruction and amusement, but to test its value as a thing worth purchasing by the farmer. Mine is the Kendall Aneroid. I have had constant opportunity of comparing its operation with the Standard mercurial—and as an instrument for the use of the majority of farmers, I think the Aneroid Barometer is far preferable to the latter. It is very sensitive to the change of the weather, and the change is easily noted; it is not liable to get out of order with fair usage, and may be carried about as easily as a common watch. From what experiments I have had with the barometer, I judge it to be a valuable acquisition to the farmer, to aid him the better to carry on his operations. He must not expect to be able to avail himself of its indications by a month's observation, if he begins unacquainted with the instrument, and correctly governs his operations thereby, but in a few months' time he will be able—if a close observer—to read its meaning and have a pretty fair idea of what the weather is going to be. In fact, he will soon find out that when any great change of the instrument takes place, a sure change of the weather is coming, and the longer he uses the barometer the more confidence he will place in it as a faithful and reliable servant. I will venture to say, also, that after he has used the instrument a year, he would no more think of getting along without a barometer than many other useful and economical "tools of the family."

The farmer of the present day—and thank God there are such—who expects to make his business pay, must be "up and dressed"—wide awake—ready to take hold of any and everything which will advance his interest and promote the great objects of his every-day duties. From such, one seldom hears much about hard times; the tendency of certain classes is to run everything into the ground—the farmer included. He must go into this and take hold of that, and new arti-

cles are constantly presented to him for purchase and urged as a necessity, but as soon as the object of the seller is accomplished, his great interest in the farmer and his calling stops, and his love is transferred to some other field. It will not do to be constantly running after new things. The Scriptures hath it, *try*—but “hold fast that which is good.” To farm it with ease and profit all really good and necessary tools should be had which the circumstances of the farmer will admit of. He can get along very well without a barometer—as farmers have done for ages—but when he can afford to spend a few dollars in some new thing, I advise him to buy this instrument—and after a few months’ experience in its use, he will find it a true and faithful friend.

N. Q. T.

King Oak Hill, 1861.

*For the New England Farmer.***MANAGEMENT OF POULTRY.**

Read before the Concord Farmers’ Club in the winter of 1861.

BY HIRAM JONES.

To give a description of the different kinds of poultry that have come under my knowledge would require more time than is usually allowed to this portion of our discussions; I shall, therefore, confine myself to two or three kinds, and shall endeavor to show why some persons do not make the raising of poultry profitable. It is an erroneous idea—entertained by many persons—that some particular breeds of poultry, only, can be made profitable. The fault is in the management—not in the stock. The complaint of some of our best farmers is, that hens cost more than they are worth, that they are a plague, and that when kept they can get no eggs from them in the winter! A few leading questions put to such persons will generally reveal the secret of their want of success.

Do you give your hens a variety of such food as they would be likely to eat if it were before them?

*Answer*—I don’t know. I want to keep them as cheap as I can, as they lay no eggs in winter.

Do you purchase scraps or meat for them?

*Answer*—No. I should suppose it would not pay for me to lay out my money for meat to give hens.

Do you pound up oyster shells, old lime or bones for them?

*Answer*—No. It is too much trouble; besides, I have to take care of my large stock of cattle, and cannot bother myself about the hens.

But is it no trouble to go to some neighbor or to the store and pay 25 cents a dozen for eggs?

No reply.

Do you give them plenty of warm water in the winter?

*Answer*—No; they can get plenty of snow.

I presume you never allow hens in your barn?

*Answer*—Never. They would soon get pitched out, if they came there.

Yes—so I thought. Perhaps they roost on the snow, as well as eat it, and probably pass the long winter in some damp cellar, or other dark hole, where the blessed sun never shines! When spring comes, they are let out of prison, with combs frozen down to their heads, their gills shrivelled, and they are minus of some toes! And

in this condition they are left to take care of themselves, and furnish their owner with a plentiful supply of eggs, and numerous broods of piping chicks! With such treatment, there can be no profit in keeping poultry.

In order to secure profit and pleasure in the management of fowls, they must be made to lay in the winter as well as summer, and this can be done by providing them with a warm place where the sun shines a portion of the day; with a variety of food, such as corn, oats, meal and potatoes, occasionally meat, and in the coldest of the weather, a supply of warm water to drink. They must also have gravel, and lime in some form, say oyster or clam shells pounded, or old mortar.

The breeds that I would recommend for laying only are the Bolton Greys and Dorkings. For raising for the early market I have tried several breeds, and find the Chittagongs the best. They are good layers, grow to a good size, dress very yellow, and are good mothers while raising chickens.

Some poultry-raisers think the mixing of breeds a good plan. I do not. Like will not produce like, after the purity of the blood is once broken.

A few hens may be kept without much outlay, and in a small space. The mechanic, with a few feet of ground in the back yard, can have a supply of poultry and eggs as well as the farmer. They are kept by all nations to a greater or less extent—by the half-civilized, as well as the more enlightened. While on the Isthmus, I noticed that the natives all kept a stock of poultry, and they occupied the same room for laying, hatching and roosting, that the people themselves occupied! They did not seem disturbed by the ringing of pots and kettles by the seignorettes, and would submit to rather rough handling by the young piccaninnies that quarrelled with them for the food. Not unfrequently I have seen them perched upon the table, while, underneath, whole litters of pigs were scrabbling for the few crumbs that fell to the ground! I do not wish it to be understood that I recommend this mode of poultry-raising in a civilized community.

One of the greatest enemies I have had to encounter is a blue louse which collects in great numbers in warm weather. I once tried the following remedies:—Sprinkled the nests and roosts with ashes, which had no effect whatever. Next, air-slacked lime; this reduced their number, but did not prove an effectual cure. Next, yellow snuff; this produced only a universal sneezing. My thorough remedy was, to clean the house of every moveable thing before warm weather, say the first of May, and whitewash every portion of the room, above, below, around; and I had no more trouble with vermin that year.

Of the management of chickens I have but little to say. I like to have them come out early, a part of them by the first of March, as early chickens bring in the market twice as much as late ones. They should have a little meat, finely pounded oyster shells, once in a while sulphur, and onions cut very fine and mixed with corn meal dough, and a dry place. It is more important that the place should be dry, than that it should be very warm.

Turkeys require a somewhat different treatment. They should never be allowed to come out until the first of May. During the first 48 hours

I give them nothing; after that, for the first three or four weeks, their feed should be mostly boiled eggs, boiled very hard. Then they may be fed mostly on meal and corn. Once in a while they should have tansy and onions mixed with their dough. The best breed is the "Rhode Island Turkey." They grow to a large size, and are hardy. I sold last year two of them, a cock and a hen, six and a half months old, half bloods, that dressed 23½ pounds.

Some farmers may think it a trifling business to keep a small stock of fowls. I propose to keep 200 hens, and see how the account will stand. One hen will consume 45 quarts and 5 gills of corn in a year, or that equivalent in other grain, and will lay about 13½ dozen eggs. To keep this number of hens would require a house costing \$100, and half an acre of land, enclosed with a picket fence which will cost about \$50 more.

|   |          |
|---|----------|
| Cost of grain for 200 hens one year.....        | \$281.61 |
| For 2000 pounds scraps.....                     | 40.00    |
| Interest on house and fence at 10 per cent..... | 15.00    |
| Interest on land at 6 per cent.....             | 3.00     |
|   | <hr/>    |
|   | \$339.61 |
| They will produce in eggs at 20c per dozen..... | \$540.00 |
| In manure.....                                  | 40.00    |
|   | <hr/>    |
|   | \$580.00 |
| Subtract as cost.....                           | 239.61   |
|   | <hr/>    |
| Leaving.....                                    | \$240.39 |

as profit. Nearly as much as there usually is in several milch cows, with several times the amount of capital invested! I have made no estimate on raising chickens, but with fair luck, the profit would be proportionably larger than in producing eggs.

|  |          |
|--|----------|
| I commenced Jan. 1st with 18 fowls, valued at..... | \$9.00   |
| 4 turkeys.....                                     | 4.75     |
| Cost for grain and meal.....                       | 34.78    |
|  | <hr/>    |
|  | \$48.53  |
| And have sold in poultry and eggs.....             | \$85.67  |
| 24 fowls on hand.....                              | 13.50    |
| 3 turkeys.....                                     | 4.25     |
|  | <hr/>    |
|  | \$103.42 |
| Subtract cost.....                                 | 48.53    |
|  | <hr/>    |
| Leaving for profit.....                            | \$54.89  |

I have given no credit for poultry or eggs used in the family, or the manure made.

#### CAUSES OF FERTILITY IN SOILS.

In a letter to the New York Farmers' Club, Prof. S. W. Johnson, of Yale College, says:

The labors of chemists to discover positively all the causes of the fertility of soils, have not yet met with conclusive success. The mechanical structure of the soil is of primary importance. Naked rock grows lichen—the same rock crushed into coarse grains, grows a much higher order of vegetable—pulverized fine, the cereals grow in it. Geology, chemistry, botany, physiology, meteorology, mechanics, hydrodynamics, heat, light and electricity, are all intimately combined in the grand process of vegetation. There are sandy soils in our Eastern States, which, without manure, yield meagre crops of rye and buckwheat; but there are sandy soils in Ohio, which, without manure, yield on an average eighty bushels Indian corn an acre, and have yielded it for twenty to fifty years in unbroken succession, the ingredients

of these soils being, by chemical analysis the same. At present no difference is known between them, except the coarseness of the particles—the first being coarse, while the Ohio sand is an exceedingly fine powder. The power of soils to attract and imbibe moisture and oxygen, was well shown by Schubler, of Hoffman, 40 years ago. Of 13 different soils, quartz sand absorbed in thirty days, 1-1000 parts of oxygen and no moisture, while humus absorbed 13 of oxygen and 120 of moisture.

#### PLYMOUTH COUNTY CATTLE SHOW.

Bridgewater, Oct. 4, 1861.

GENTS:—The *Plymouth County Agricultural Society*, held its *Forty-Fourth* Exhibition at Bridgewater, October 3 and 4, 1861. The grounds are opposite the village, near the railway station, and are easily accessible. They contain about thirty acres. The spacious building erected for the accommodation of the society, stands upon a beautifully rounded hill, in the midst of a charming amphitheatre whose outlines are the distant hills gradually rising from the base of that upon which the building stands. Between them is a limpid stream, flowing gracefully around two sides of the grounds, which is a tributary of the Taunton River. From the building to the tributary, the grounds have a varied declivity, now falling so rapidly as to prevent an easy passage over them, and then sweeping gracefully away over many acres to the margin of the stream.

The internal arrangements of the grounds are admirable,—being dotted with shade trees and numerous seats for the comfort of those fatigued; ample shed room for those who wish to have their horses under cover during the day, and the pens for cattle, sheep and swine were well constructed and arranged for the convenience of the spectator as well as the comfort of the animals. An abundant supply of water seemed to be at hand at every point, and gentlemanly marshals and other officers were quietly moving every where to enlighten or assist whenever appealed to. On the smooth, velvety lawn, on the north-east side of the spacious building, clean and comfortable seats were provided, upon which hundreds of men, women and children were accommodated, and they were kept filled by ever-changing comers and goers during the entire time of the show. No other scene in the whole panorama, to my admiring eyes, equalled this! Here I often lingered, and while my ears caught the harmonious tones of happy voices of every age and sex, my eyes wandered to the brilliant outline of hills in the distance. Their sides were partly "arrayed" in forest, and partly in "living green." No frost had been there, yet the foliage was transcendently beautiful, the bright sunlight glancing upon the scarlet, or golden, or purple, or orange colors, presented by

the ripened leaves. Amid this quiet scene, surrounded as I was by a throng of enterprising, intelligent, and tastefully, but not extravagantly dressed persons, the question often came to my mind, "*What influence are these gatherings—so common all over our State—to have upon our population?*" It cannot be of a negative quality. It is active, for good or evil. In this department it cannot certainly have the latter influence,—for if anything tends to improve the manners, to soften prejudices, and enlighten the farmer, it must be such associations as this.

Now let us look at some of the details of the affair,—but they must be brief, because they are numerous. The **PLOWING MATCH** was contested by two horse-teams and seven ox-teams. The soil was a sandy loam, more sand than loam, however, and might have been plowed by one stout horse accustomed to that kind of work; but being all alike, was fair for all. The best work done, all circumstances considered, was the land plowed with a pair of horses driven by the holder of the plow. The team belonged to C. G. DAVIS, the President of the Society. In my view of the Plowing Match, I was exceedingly gratified to have the company of JOEL NOURSE, Esq., one of your firm. His suggestions and critical observations gave this department of farm labor—important as I had considered it—a new value to my mind. His experience is so large, and his knowledge of the principles that must be observed in making a good plow, so accurate, that they enable him to detect any defect in the implement, or deficiency in its holder, at once. The veteran plow-inventor and maker, Mr. MEARS, was on the ground, but I had no opportunity to take him by the hand. My first view of the stock was that of

**THE SHEEP.**—In this part of the exhibition, I was gratified to find that more attention than has been usual is given to the rearing of this important animal of the farm. Presented by Messrs. H. & V. AMES, I found 10 sheep of mixed breed, probably Southdown and Cotswold. At shearing they gave 6 pounds each, as an average, which sold for 35 cents per pound,—and the 10 sheep brought 14 lambs, which were sold, if I understood them correctly, at \$3.50 each, making a total income of \$70 from 10 sheep, in a single season! The reader can now ascertain the average cost of keeping a sheep, the value to his farm of its rich droppings, and then learn whether the keeping of sheep would be likely to be profitable to him. ALBERT G. PRATT, of North Middleboro', and JAMES T. LEACH, of Bridgewater, presented some fine animals—the latter had 25 Cotswolds. C. G. DAVIS, Plymouth, 10 breeding ewes, Oxford Downs, from R. S. Fay's flock at Lynn, and 10 lambs, 5 and 6 months old. JAMES GOULD, of Bridgewater, had 16 head, mixed breed. PELEG

BARKER, Pembroke, THOS. O. JACKSON, Plymouth, buck and ewe, Leicester breed. P. M. C. JONES, Carver, large and fine animals of a mixed breed, and E. W. BARSTOW, Bridgewater, 2 Leicester and 25 Southdowns.

**CATTLE.**—Among these I found 7 or 8 fine Alderney cows and heifers, presented by C. G. DAVIS, of Plymouth. 6 or 8 pairs of fat cattle and 3 cows were all good—some of them excellent. Messrs. H. & V. AMES had a noble pair of fat oxen. There was a fair show of milch cows, bulls and heifers, but nothing remarkable among them. The **TOWN TEAMS** were long and creditable, some pairs among them were very good, always being strongly marked with the Devon blood. The Team from the *State Alms House Farm* at Bridgewater, was made up of 14 head, led off by a miniature pair of steers, who seemed quite elated with their position in marshalling along the ponderous "quads" behind them. Among the oxen were 3 or 4 pair of heavy working cattle, who had evidently been much in the yoke. One pair was mostly Devon, and was very handsome; the others were mixed breeds, heavy, muscular animals, in fine working condition, who have doubtless done good service on the State Farm. Indeed, there are no idlers under Capt. GOODSPEED's administration. Bipeds, as well as quadrupeds, must cut their own way, if they have the physical power. Under this just rule, the Captain has wrought wonderful changes on the face of the farm. The State has been fortunate in securing the services of so faithful and intelligent an agent. He went there, I believe, at the opening of the Institution, and has continued acceptable to all the succeeding administrations, merely by attending strictly to his duties, without any attempts at side show or to court the popular breeze,—leaving his cash balances and the appearance of the inmates of the institution, and the condition of the farm to commend or condemn his operations. Besides his big team and wagon, loaded with the vegetable and cereal products of the farm, and the quarter of a hundred athletic boys from his family, he had about 30 head of milch cows and heifers, and a yearling Alderney bull of pure blood. Many of these cows were very fine; one of the heifers I should be glad to show to friends, in my own stalls.

In conversation with Mr. AUGUSTUS PRATT, Chairman of the committee on milch cows, I found that they were decidedly pleased with the herd of imported Ayrshire and Alderney cows entered for exhibition by NAHUM STETSON, of Bridgewater. One of his Ayrshire cows, he said, gave an average of 27 quarts of milk per day, for five successive months! He also spoke highly of the President's young Alderney stock, which I have already noticed.

SWINE.—The show of swine was excellent, though the specimens were not numerous. One among them weighed 911 lbs., and though so heavy was symmetrical, compactly built, and looked as though a proper portion of him would savor a pot of beans excellently well!

OF POULTRY, there were good specimens. Some Embden and Bremen geese were especially beautiful.

THE HORSES were numerous, but I did not see a pair,—and but one single animal—that were particularly attractive. There were, however, a great many excellent horses on the grounds, in which were combined the qualities which make up a good family and farm horse,—and these, after all, are the best horses we have among us. All the space allotted to horses and carriages on the grounds, the sides of the highways for a long distance, and the door-yards were filled with these horses and substantial family carriages—and I looked upon them as a fair index of the homes from whence they came.

The display of VEGETABLES was grand, as it has been at all the exhibitions which I have attended, or heard from this autumn. The potatoes were especially nice. A. P. BENSON had 71 varieties of beans.

The show of FRUIT was good for this year. That of Pears, the best I have seen. GUSTAVUS GILBERT, of Plymouth, had 29 varieties, among them the Winter Nelis in perfection. He had four varieties of grapes. B. HEDGE, Plymouth, made a fine show of the Seckel, Golden Beurre Flemish Beauty, and other varieties of less note. All grown upon pear stocks.

There was a pleasant display of GRAPES, among which were the Concord, Catawba, Perkins, Union Village, Delaware and others. Col. WILDER sent in No. 4 of RODGERS' Hybrid Grapes, which is described as a dark purple—clusters large, with shoulders; berries large; flesh tender, with sweet rich flavor; earlier than the Isabella; hybridized from the Native and *Black Hamburg*, and No. 15, hybridized with the *Sweet Water*, and described as a light amber color; bunch of medium size, shouldered; berries large, skin thin, flesh tender, of a rich aromatic flavor; vine vigorous and productive, ripening same time as Diana. There were many fine specimens of the Concord.

OF APPLES, there were only a few plates, and those of an ordinary character. Better might have been shown, because I saw them on trees within a mile or two of the tables. Mrs. MARTHA KEITH, of Bridgewater, presented a lot of *dried apples*, the cleanest and nicest I ever saw.

There were several specimens of butter and cheese. I tasted nearly every package of the former, and found no one that I should call "first-

rate." Some of it was excellent in itself, but was too highly salted. Other packages were in stone jars that retained the flavor of other substances, such as lard, cake, or something else, while some were a little strong. It is singular that the art of butter-making remains so imperfectly understood. The annual loss to farmers of New England in this article is immense, because the butter is not made and packed properly. Good butter is so delicate that it catches and retains almost any other flavor that comes in contact with it, or near it. It must be made *absolutely* sweet, then properly packed in perfectly clean and sweet vessels. Such butter will *always* command a high price—say from 25 to 37 cts. a pound! I am sorry to make these criticisms upon the handiwork of the dairywomen of old Plymouth, but cannot afford to be unfaithful in anything. I hope they may lead to greater care in the making of this delicious and prime article of our tables. I did not taste the cheese, the honey, the wine, the preserves, nor the cold soap!

I am but a poor judge of "dimities" and "crinolines," "patchwork" or "paintings," but had very clear convictions that the manufactured articles from the fair hands of the women, were *decidedly excellent*. They certainly appeared so, and felt so to the touch, when they were not so delicate as to forbid my placing a finger upon them.

At the table there was a reasonable feast for both mind and matter—body and soul. Five, six, perhaps seven hundred persons were at the tables, half of them women,—thanks to Old Plymouth. If this has been effected by the presence and energy of a middle-aged gallant President, whose accomplished wife works kindly in the same yoke with him, why then all our Societies will know what kind of enginery to set in motion in order to get five hundred ladies at the dinner tables! I frequently saw Mrs. D. mingling with the crowd, and ever doing what was appropriate in her sphere to promote the progress and harmony of the occasion. I cannot omit saying, gentlemen, that this feature of the Exhibition,—the attendance of so many women looking upon it in all its departments—*is the most encouraging feature of all*. For when the farmer's wife and daughters take their proper place in his occupation, honoring and cherishing it with their intelligent industry and approbation—giving to it dignity and attraction by their interest in all its operations, and encouraging their sons and brothers to develop its mysteries and make it a labor of scientific inquiry as well as a physical task, then he will soon spring to that position which those engaged in the pursuit *may* deserve. It is partly his own fault, if he has been outstripped by other professions,—partly his own fault, if the



other sex of a marriageable age, prefer almost any other man for a husband rather than a farmer!

There was no address at the table. The President, C. G. DAVIS, of Plymouth, now elected for the *sixth* time, made some remarks upon the condition of the Society, expressed his great pleasure upon seeing so many in attendance, and then, with rare felicity, introduced the invited guests of the occasion. Dr. JABEZ FISHER, of Fitchburg, a delegate from the State Board of Agriculture, was the first speaker. He was followed by the writer of these notes, who spoke to them of the importance of raising their own wheat, by Hon. ALBERT FEARING, of Hingham, President of the Society of that town, and a gentleman who is doing much to promote the noble art,—and then by His Excellency, Gov. ANDREW, the Commander-in-Chief coming last, and by his patriotic eloquence entirely neutralizing the defects of oratory in those preceding him, leaving the audience in the most happy frame of mind imaginable. He was frequently applauded at the close of one of his patriotic and eloquent sentences. His remarks had reference, mainly, to the war, as all his energies, for several months of unflinching labor, have been devoted to plowing out that filthiest of all invaders, secession.

The Exhibition has been an excellent one. Excellent in its arrangements—excellent in the products presented,—and most excellent of all in the men, women and children who have established and sustained it.

I will only say how much I am indebted to Mr. DAVIS, the President of the Society, and its other officers wherever I met them, for the kindest attentions,—and to Messrs. H. & V. Ames, and the Lady of the former, who “took me in” and fed me, when I was tired and hungry, and paid me every attention I could desire—and then subscribe myself, Very truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

*For the New England Farmer.*

#### CULTURE OF WHEAT.

MR. EDITOR:—I have read with much interest the elaborate article of Mr. Wood, in the *Monthly Farmer*, just received, on the “Culture of Wheat.” To bring together such a mass of facts, must have caused him much investigation. In his estimate of the value of the product of his fields, I was surprised that he should put down the straw at \$10 the ton, when English hay is worth only \$15 the ton. I believe that straw will not bear to be estimated more than half as much as hay, as a general thing. It certainly will not, for any feeding purpose. He excuses himself from naming the varieties of wheat most worthy of culture. This is the very thing we, in this remote section of the State are most anxious to

learn. Pray tell us, Mr. W., (if you know,) what kind of wheat is best to be sowed, and where it can be obtained? Several of our farmers, the last season, Messrs. Sutton, Berry and Tilton, among the number—raised very good crops of wheat. But I doubt whether there were a dozen others who raised any—and there are more than one hundred in town who might have raised it, if they would. If they could be satisfied that it will pay, I believe they would all be glad to grow it. But in order to satisfy them, facts alone should be brought forward, and calculations should be made in a manner to bear *cross examination*.

*South Danvers, Oct. 1, 1861.*

P.

#### INDIAN SUMMER.

BY CHARLES PENNO HOFFMAN.

Light as love's smiles, the silvery mist at morn  
Floats in loose flakes along the limpid river;  
The blue-bird's notes upon the soft breeze borne,  
As high in air he carols, faintly quiver;  
The weeping birch, like banners idly waving,  
Bends to the stream, its spicy branches laving;  
Beaded with dew, the witch-elm's tassels shiver;  
The timid rabbit from the furze is peeping,  
And from the springy spray the squirrel's gaily leaping.

I love thee, Autumn, for thy scenery, ere  
The blasts of winter chase the varied dyes  
That richly deck the slow declining year;  
I love the splendor of thy sunset skies,  
The gorgeous hues that tinge each falling leaf,  
Lovely as beauty's cheek, as woman's love, too brief;  
I love the note of each wild bird that flies,  
As on the wind he pours his parting lay,  
And wings his loitering flight to summer climes away.

O, Nature! still I fondly turn to thee,  
With feelings fresh as e'er my childhood's were;  
Though wild and passion-tossed my youth may be,  
Toward thee I still the same devotion bear;  
To thee—to thee—though health and hope no more  
Life's wasted verdure may to me restore—  
I still can, childlike, come as when in prayer  
I bow my head upon a mother's knee,  
And deem'd the world, like her, all truth and purity.

THE GREAT METROPOLIS.—It is calculated that there are from 1000 to 1500 acres within ten miles of London under the strawberry crop.

The Commons' Select Committee on the local taxation and government of London have to deal with an area of 78,029 acres, on which stand 360,237 inhabited houses, with a population of 2,803,034 souls. The assessment is over sixty millions of dollars annually, and 7000 persons are employed entirely in the government of this vast body of people.

THE SOUTH MIDDLESEX SHOW.—The *Middlesex South Society* held its annual show at Framingham, September 17 and 18. The attendance was large, and there was a fine display of cattle, horses, swine and poultry. The address was by Dr. LORING, of Salem. Mr. H. H. PETERS, of Southboro', had a fine display of Ayrshire stock. The weather proved to be pleasant, and the whole occasion was one well calculated to promote the objects for which the association was formed.

### HATCHING YOUNG OSTRICHES.

Since the French occupation of Algeria, ostriches have been conveyed thence to France in great numbers; but, until the instance now to be recorded, a brood had never been produced in France. It is very difficult, under the necessary restraint of a zoological garden, to supply the necessary conditions for bringing about this result. The attempt had been frequently made to do so in the Zoological Gardens of Marseilles, but as frequently failed. Even last year, notwithstanding the care devoted to the ostriches in that establishment, and though eggs were laid in plenty, no young ostriches could be hatched. The director, M. Suquet, however, was not to be thus foiled. Failing to accomplish what he desired in the gardens, he bethought himself of trying what could be done out of them. In the territory of Montredon he selected a sandy plain, situated between the sea and the mountains which form the southeast of the Gulf of Marseilles. The spot belongs to M. Pastre, who kindly gave the necessary co-operation. There a large secluded valley was fixed upon, sufficiently wooded to afford shelter, without intercepting the sunshine necessary for quickening the eggs. After having enclosed a space 600 metres long by 500 wide, the birds were conveyed to their hatching ground on March 2 of this year. For a few days the birds seemed to regard their new quarters with suspicion, and ran anxiously about. Soon, however, they settled themselves and began laying. Their nest was at first a simple excavation in the sand, in the form of a truncated cone. Gradually the borders of this hole were heightened by accumulations of more sand. At this labor the male and female bird worked alternately. A few hours after the completion of the nest, laying began, and was continued every alternate day, until by the 20th of April 15 eggs had been deposited. Up to this time the hen guarded the nest a few hours before and after incubation, sometimes for an entire day. After April 20, however, the male bird commenced taking his spell of watching, the lady only seeing to the household during periods when her lord and master was temporarily absent from home. All seemed to go on satisfactorily. According to observations made by M. Hardy, at Algiers, the time of incubation should be from 56 to 60 days. Knowing this, M. Suquet was surprised when, on June 3, intelligence came that the first young ostrich had opened its eyes to sunshine on French soil. By the evening 11 had been hatched. On the day following the young birds left their nest and began to wander over the enclosure, guided alternately by papa and mamma, who spared no trouble in this their first walking lesson. During these excursions one bird always lingered a little behind. It was weak, and soon died, thus reducing the number of the young family to 10. They went on growing rapidly, so that by the 8th of August they were as big as young turkeys, giving every promise of arriving in due time at years of discretion, and contributing for many a season, to the *grande tenue* of many a fair Parisienne.

THE CURCULIO IN THE BLACK KNOT.—Dr. Trimble has brought us some curculios, in various stages of transformation, taken from the

black knot on the cherry. They are precisely identical with the plum curculio, a fact which we have before demonstrated. We think there can be no doubt that the curculio in the knot and those in the cherry, plum, apple, &c., are all one and the same.—*Horticulturist*.

### THE DOMESTIC TYRANT.

It is to me a thoroughly disgusting sight to see, as we sometimes do, the wife and children of a family kept in constant terror of the selfish bashaw at the head of the house, and ever on the watch to yield in every petty manner to his whims and fancies. Sometimes, where he is a hard-wrought and anxious man, whose hard work earns his children's bread, and whose life is the sole stay, it is needful that he should be deferred to in many things, lest the over-tasked brain and overstrained nervous system should break down or grow unequal to the task. But I am not thinking of such cases. I mean cases in which the head of the family is a great fat, bullying, selfish scoundrel; who devours sullenly the choice dishes at dinner, and walks into all the fruit or dessert, while his wife looks on in silence, and the awestricken children dare not hint that they would like a little of what the brutal hound is devouring. I mean cases in which the contemptible dog is extremely well-dressed, while his wife and children's attire is thin and bare; in which he liberally tosses about his money in the billiard-room, and goes off in autumn for a tour on the continent by himself, leaving them to the joyless routine of their unvaried life. It is sad to see the sudden hush that falls upon the little things when he enters the house; how their sports are cut short, and they try to steal away from the room. Would that I were the Emperor of Russia, and such a man my subject? Should not he taste the knout? That would be his suitable punishment for he will never feel what worthier mortals would regard as the heavier penalty by far, the utter absence of confidence or real affection between him and his children when they grow up. He will not mind that there never was a day, when the toddling creatures set up a shout of delight at his entrance, and rushed at him and scaled him, and searched in his pockets, and pulled him about; nor that the day will never come, when, growing into men and women, they will come to him for sympathy and guidance in their little trials and perplexities. O, woful to think that there are parents, held in general estimation, too, to whom their children would no more think of going for kindly sympathy, than they would think of going to Nova Zembla for warmth.—*Country Parson*.

### PREMIUMS.

Some persons have complained because we do not publish the premiums awarded at the Middlesex Show. If they will but consider that the *Farmer* is dependent for its support upon the patronage extended to it from many different States,—that shows are occurring almost every day for five or six weeks,—and that the annunciation of the premiums have no sort of interest except in the localities where they are received,—

we think they will not find fault with us for rejecting them entirely. If we were to publish only those relating to our State, they would occupy a large space in each week's paper, that would be of no more value to most readers, than a last year's robin's nest! What would our four or five thousand subscribers in Vermont say to this?

If gentlemen will send us the results of every society in New England briefly written, we will try to find a place for them. When we find any thing of an extraordinary character, that has drawn a premium, we are quite willing to mention the premium in connection with the fact itself. Our object is to give *variety* always, as well as useful matter.

#### DOCKING AND NICKING.

These barbarous methods of depriving the horse of his natural form and appearance, in order to make him conform to the fashion of the time, is, fortunately, very fast going into disuse. If the tail of the horse were given him for no good purpose, and if it were not a design of nature that he should have the power of moving it forcibly to his sides, there might be some excuse for cutting it off, within a few inches of his body, or for separating the muscles at its sides to lessen this power; but, that this is not the case, must be acknowledged by all who have seen a horse, whose tail has been abridged by "Docking," or weakened by nicking, annoyed by flies.

If a horse has a trick of throwing dirt on his rider's clothing, this may be prevented by cutting off the hair of the tail, below the end of the bones, as is the custom with hunters in England, where the hair is cut squarely off about eight or ten inches above the hocks.

No apology is offered for not giving here a description of these two operations; they are so barbarous and so senseless, that they are going very rapidly out of fashion, and it is to be hoped that they will ere long have become obsolete, as has the cropping of the ears, formerly so common in England.

A more humane way of setting up the horse's tail, to give him a more stylish appearance, is by simply weighting it for a few hours each day, in the stall, until it attains the desired elevation. This is done by having two pulleys at the top of a stall, one at each side, through which are passed two ropes which come together and are fastened to the tail, the ropes having at their other end, weights, (bags of sand or shot are very good for the purpose) which must be light at first, and may be increased from day to day. The weighing should be continued until the tail has taken a permanent position, as desired. It is true that this method requires a somewhat longer time than that of cutting the muscles, but while it is being done, the horse is never off his work, and he suffers infinitely less pain.

The method of nicking or pricking, as usually performed in this country, is not quite so cruel, nor so hazardous as the cutting of the muscles.—*Herbert's Hints to Horse-keepers.*

#### THE CORN BARN.

This term is as familiar to New England ears as any household words. On most farms, where a few acres are cultivated in corn and the smaller grains, the proprietor thinks he must have a granary, or, as he terms it,—a CORN BARN. And such a building is necessary; for it is as important to protect and preserve the grain that has been raised, as it is the hay on the scaffolds, the fruits, vegetables, or other things that have been produced. Grain attracts rats and mice, and when kept in the common barn, the hay and the numerous places where they can make their nests and retreat to after feeding upon the grain, greatly facilitate their multiplication, and they sometimes are so numerous as to become a most expensive nuisance. They are also destructive to buildings by undermining and gnawing them, and are frequently disgustingly filthy. The corn-barn, therefore, should stand by itself—be protected against the ingress of mice, and then be kept scrupulously clean; and even with this care, should be annually emptied of all its contents and thoroughly purged. Then the bread upon the table, or the grain in the horse's crib, will be likely to possess all the nutriment and sweetness which it had when it came from the field.

We have visited many "corn barns," but have not found a dozen in such condition as we thought properly protected the farmer's property, and reflected credit upon him as a systematic economist. If they were not Pandora's boxes, from whence flowed every evil, they certainly readily suggested that myth. Let us walk into one of them and see. At the right is a narrow bin for the corn. On the farther end is an old pair of broken sleigh runners, and the remnants of an ancient cheese press, not over-nicely cleansed when its further service was dispensed with. Hard by these hangs the battered body of an old "tin-kitchen," reminding one of the days of large fire-places, roasted sirloins, turkeys and saddles of mutton. Three casks stand in a corner, the aggregate amount of hoops on which would not equal those of a Miss of sixteen of to-day. In one of them is a peck of two-years old beans, the second is filled with cobs, while the third has a miscellaneous collection of old hoes, horse shoes, broken whiffletrees, the greasy "spit" that belonged to the aforesaid "tin-kitchen," the "head and distaff" of a linen wheel, and various other things that had seen their day and generation. Two broken, rusty plows, are perched on the end of the beam in another corner—while between is a bundle of catnip, another of mullein, and a handful of dock roots, hung there for the pious purpose of assuaging fevers, agues and cramps, when—well, when the proprietor can't work any

longer! On a little shelf between the studding is the remnant of an old grease-pot, which, whilom, produced a supply of lubricating matter for the ox-cart or old chaise wheels—but its day has long since departed, and it should have slept quietly with its mother earth many years ago.

Intermingled with these interesting relics of husbandry are bits of old harness, as dry and hard as the heart that never softens at the sufferings of others or at children's sweet words; here a broken hame, and there a ruptured collar, with the rye straw protruding, showing that "all is not gold that glitters."

After all, there is something interesting in such a "curiosity shop"—it may not be a "practical grain-keeping" place, but we never saw a person enter such an one without lingering there and fingering the various articles, as though he had found something that belonged and did service to another age of the world. To the naturalist, as well as the antiquarian, such a place must possess a rare interest,—for up among the rafters and on the cross-beams, suspended in webs such as loom of mortal never produced, are various entomological specimens prepared with more than human skill! Here is a great black cricket, from his size, evidently a "fall-fed" one. How perfect he is. His "feelers" are projected, and look as though they would move in a moment. The soft hair on his legs is as perfectly adjusted as when he played his last evening tune to the listeners on the warm hearth-stone above him! And now that we blow the dust from his body, see what a perfect form and coloring are presented! No artist can equal it. See how it bides the "tooth of time." It may have been here ten years, or longer, for these lofts are sacred, as no sacrilegious broom ever aspires to these heights—and yet it seems as perfect as though it were the work of yesterday! Ten years ago, perhaps, the insatiate spider lured the unsuspecting victim to his toils, fastened him there with his strong cables and philosophical appliances, and then quietly sat down and dined upon him, feasting upon the rich juices, but leaving the external form as perfect as when it came from the hand of the Great Architect himself! Here are, also, flies,—for we are in the "corn-barn" still,—grasshoppers and a variety of other insects, in which the eye of the entomologist would find delight.

That a "corn-barn" on every productive farm is useful and economical, is clear; but when it is diverted from its proper purposes, and is the lumber house of all sorts of cast-off and unclean things, it becomes an expensive adjunct to the farm.

Who will look into the Corn Barn, and see whether it is worthy to receive the present year's crop?

#### STRENGTH AND HEALTH.

It is quite a common idea that health keeps pace with strength. I know intelligent persons who really think that you may determine the comparative health of a company of men by measuring their arms—that he whose arm measures twelve inches is twice as healthy as he who measures but six.

This strange and thoughtless misapprehension has given rise to nearly all the mistakes thus far made in the physical-culture movement in this country.

A friend of mine can lift nine hundred pounds, and yet is an habitual sufferer from torpid liver, rheumatism, and low spirits. I know many similar cases. The cartmen of our cities, who are our strongest men, are far from the healthiest class, as physicians will readily testify.

On the contrary, I have many friends and acquaintances who would stagger under three hundred pounds, that are in capital case.

But I need not elaborate a matter so familiar with physicians and other observing people.

No tests of health would prove more faulty than a tape-line, or a lift at the scale beam.

Suppose two brothers, twins, bank clerks, in bad health. They are measured around the arm. Each marks exactly ten inches. They try the scale-beam. The bar rises at exactly three hundred pounds, with each. Both seek health.

John goes to the gymnasium, lifts heavy dumb bells, and kegs of nails, till he can put up one hundred and twenty-five pounds and lift nine hundred, and his arm reaches fifteen inches.

Thomas goes to the mountains—fishes, hunts, spends delightful hours with the young ladies, and plays cricket. Upon measuring his arm, we find it scarcely larger than when he left town, while he can't put up sixty pounds, nor lift five hundred.

But who doubts Thomas will return to the bank counter the better man of the two?

John should be the better man, if *strength* is the principal and most essential condition of *health*!

And here I must introduce, for the second time, an illustration which is quite in point.

A circus usually contains among its performers a man who lifts a cannon, weighing nearly or quite half a ton. Then there are half a dozen riders and vaulters, who have comparatively little strength. If any body supposes that the strong man has better health than the flexible, elastic ones, he has but to make inquiries of circus managers, as I have done, and he will learn that the balance is found almost uniformly with the latter. Agility and flexibility are far more important than strength, and that the fine silken quality of the muscular fiber, which comes only from an infinite repetition of light and ever-varying feats, far more important than size.—*Lewis' Gymnastics.*

ANIMALS BECOMING PARENTS TOO EARLY.—Victor Gilbert never allowed ewes to have lambs until they passed their third year; and the bucks were not used until they had arrived at full maturity. He, as well as many other sagacious stock-raisers that we might name, are probably conversant with the fact that during the period of growth and development up to maturity, the re-

productive organs are dormant, while at the same time the nutritive function is wholly engaged in elaborating chyle and blood for the development of bone, muscle and nerve, and that calling into requisition the reproductive or generative organs, before the animal has attained full growth, must necessarily divert the elements of matter intended for nutrition from their legitimate channel and direct them to the reproductive organs. A too early use of the purely animal function induces weakness and stunted growth.—*American Veterinary Surgeon.*

*For the New England Farmer.*

#### EDITORIAL CORRESPONDENCE.

To the visitor, New York appears as gay now, as ever it did. In truth, it is gay; although this rebellion has made many rich men poor, and poor men poorer. The actual suffering is much less than is supposed; because, firstly, many have failed. Now it is a well known fact that not one New Yorker out of twenty fails in business, and suffers for the want of cash, for at least a year thereafter. Business men generally have been lenient towards each other. Banks have carried along an enormous amount of paper for the accommodation of their customers. Lastly, the necessities of life have not been so abundant and cheap for some years. No doubt many of the fashionables of last year find great difficulty in supplying the cash for their daily expenses, and some of them would, no doubt, be glad to sell or rent the extravagant houses they occupy, if they could obtain anything near their value. As evidence thereof, last week, one of the largest real estate agents in this city, handed a customer a long list of fashionably furnished houses, with the rent asked against each, ranging from twelve hundred to four thousand dollars, at the same time remarking to the house-seeker, to select the one he wanted, regardless of the figures, and make an offer. This may not appear remarkable to many of the readers of the *Farmer*, but it would to any one who has ever been house-hunting in this city. In peace times the agent would show his price list with no idea of making a reduction.

This is the season for outdoor gaiety. Until December, no city can claim a finer climate; so mild, pleasant, and at the same time so invigorating. Broadway is crowded every day, and Central Park, on a Saturday afternoon, presents as gay a scene as can be found anywhere in Europe. In fact, excepting Paris, there is no city of Europe that can boast of as fine a park as ours; when it is finished, Paris will be outdone. The Bois de Boulogne is not so large as our park, but it is possible we shall be obliged to concede something in its favor as regards taste. The French understand better how to produce a grand and an agreeable effect, but their park is not so elaborate and costly as ours will be. Dodsworth's band performs regularly on Saturdays. Tens of thousands of well dressed people, and hundreds of gay equipages and equestrians are there, not attracted so much by the music, as to see and be seen. It serves as a sort of social change, where the approaching season's parties and sociables are

talked over, and where many new acquaintances are made.

It seems now, as though the coming season will be as lively as the last, although it is pretty well conceded that there will not be so many costly parties given. Economy will be practiced even by those who can afford to be extravagant. I have heard of numbers of ladies who affirm that they will wear last year's dresses, dispense with champagne suppers, and have sociables instead of parties.

Forty-eight public evening schools were opened here this week. It is supposed that the average attendance will be about three hundred each. These schools are to accommodate those who cannot attend in the daytime, and are, of course, great blessings to the city; they would be greater if the teachers were appointed as to merit, and not by favor. All the schools are managed by the Board of Education. Many of the members who appoint teachers ought to go to school themselves. There is much talk about abolishing the present board.

W. W.

*New York, Oct. 10, 1861.*

*For the New England Farmer.*

#### THE WHEAT TADPOLE.

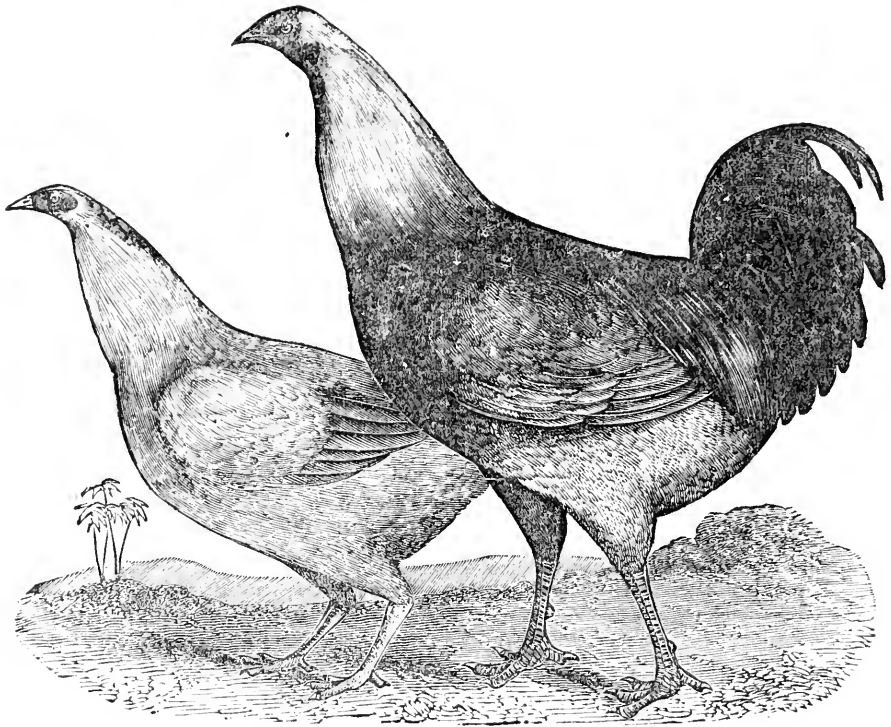
When I was reading your paper of Sept. 14, I saw a piece from "K.," Sunderland, Vt., about what he calls the wheat tadpole, and the pale red bug, of which I have seen other statements. Near the first of June the aphid attacked a piece of winter rye, and almost spoiled it by sucking the juices from it. After that they attacked my winter wheat which was near by, or all our wheat, winter and spring, but did not do so much damage to it, for the "pale red bug with black spots" attacked the aphid, so that they did not gain as fast as they did on the rye. This bug, or the Lady Bird, as it is called, you or "K." can find a description of in the "Patent Office Report" for 1854, Plate 8, page 85. In regard to the parent of the apple worm, he will find a description of that on page 82, Plate 7, report for 1854; also in "Cole's American Fruit Book," page 89. In the "Patent Office Report" for 1854, page 62, Plate 3, there is a description of the cotton louse, which in appearance seems to be the same as the aphid that attacked our wheat.

E. M. T.

*Auburn, N. H., Sept. 18, 1861.*

ESSEX COUNTY SHOW.—This society is an old and vigorous one, and full of good works. Hon. ALLEN W. DODGE, of Hamilton, is its President, and was its Secretary for seventeen years prior to his promotion. The society has ample funds on hand, and an experimental farm in Topsfield, bequeathed by the late Dr. TREADWELL.

Over 80 head of cattle were entered; about 50 horses, a few sheep, and a fine show of swine and poultry. A fine display of fruit was made, and flowers, vegetables and manufactured articles were in profusion. Address by Hon. ALFRED A. ABBOTT. The dairy women of Essex sustained their ancient reputation in the display they made.



#### EAST INDIA OR SHAKEBAG FOWL

Mr. BENNETT, in his book on Poultry, says this fowl has so many points of affinity with the Malay tribe, that there can be no impropriety in associating it with them. He says they are exceedingly rare in this country. Their average weight is from eight to fourteen pounds. The hens are good layers, and the eggs have every mark of the East Indian origin of the race, being dark-colored and large yolked.

Richardson says: "A good many years ago, there used to be a variety of fowl much in request in England, called the 'Shakebag.' They were as large as the Malays, but differed from them in the superior whiteness and tenderness of their flesh."

Mr. Dickson says, "This fowl, which was formerly in very high repute, is said to have been as large and as finely-flavored as a turkey; and though now rarely met with, it is still to be found in some poultry-yards in Berkshire."

Mr. Bennett describes these fowls, imported by Mr. John L. Tucker, of the Tremont House, Boston, a few years ago, as somewhat different from the illustration which we now give. The differ-

ence, however, is trifling, with the exception of the comb and wattles. He says "the plumage of the male is brilliant in the extreme, being of a bright red and glossy yellow, beautifully blended, and shaded with black, so as to present a most beautiful and captivating appearance.

The hackles of the rump are long and drooping, and of a golden-reddish color. The comb and wattles are large and single; legs large and yellow, and destitute of feathers; tail long and drooping, with rich and glossy plumage. The gait is lively and majestic; in a word, it is the handsomest of any of the large breeds, and should be classed with the best varieties. The hens are of a bright yellow and glossy brown, good layers and nurses, and very domestic. The eggs are rather large, well flavored, and of a pale reddish color. Their flesh is very fine for so large a fowl."

THE AGE OF THE GUANO DEPOSITS.—Mons. Boussingault, the celebrated French chemist, in a late paper contributed to the Academy of Science, shows that the age of modern alluvions does not extend beyond historical times, whereas old alluvions date from the period immediately preceding

that at which man first began to inhabit the earth; so that the guanæ or cormorants, and other allied birds, which deposit guano, must have existed thousands of years before man, seeing that the lower layer of guano is sometimes fifteen or twenty yards in depth, while the old alluvial crust above it has a thickness of upward of three yards.

#### GREAT SALT LAKE.

From an interesting description of the Great Salt Lake, which we find in the *Philadelphia Ledger*, we make the following extracts:

Away out in the Western wilds, some three hundred miles beyond the Rocky Mountains, and amidst other and loftier mountains still, there exists one of the most remarkable natural curiosities in the world—the Great Salt Lake.

All the streams and rivers which run into Salt Lake have their sources in the Great Basin, and what is remarkable, none of them find their way out of it. There are no outlets to the great lake; it receives the waters of several large rivers, swollen annually by their mountain tributaries, but in no very extensive degree are the waters of the lake increased during the seasons of the most copious flowing of these rivers. What becomes of the water is a question solvable only by the universal laws of nature, which keep the waters within these circumscribed limits in equilibrium, as the same is done on an immeasurably grander scale with the waters of the great oceans of the world. Great Salt Lake, according to the United States government survey, which was completed in 1850, is two hundred and ninety-one miles in circumference on the shore line. The storm line, as it is called, would make it much more extensive. This storm line is the extent to which the waters of the lake are driven by the frequent and violent winds which sweep over its surface, chasing the waters in rolling waves far out upon the salt marshes and sandy plains. The lake is oblong, being about twice as long north and south, as it is wide. There are several islands in the lake, which obstruct the view of its whole surface. Of these, Antelope Island is the largest. It is sixteen miles long, and five miles across in its widest part, and it rises three thousand feet above the level of the lake. These islands are all similar in appearance, being long, rocky, barren mountains, ranging north, and south; the same being the general course of all the mountains in that region. On some of the mountain islands are found innumerable quantities of wild water fowl, such as gulls, ducks, white brant, blue herons, cormorants and pelicans, and the eggs are sometimes found so thick upon the ground in favorite spots, that it is impossible to walk without tramping upon them; these fowls find their food in the rivers and streams which flow into the lake. No living thing of any kind exists in the waters of the lake. A deep dark colored substance is washed to the shore, which on the shore somewhat resembles very small dried leaves, and in the water looks like mud; this has been proved to be the larvæ of insects, and when disturbed it emits a most nauseating smell. Where they come from, is a question which has never been solved; perhaps they were winged insects and fell into the lake. The water of the lake is salter than any other upon the face of the earth. Per ons en-

gaged in boiling salt on the shores of the lake, say that three buckets of the water dipped out of the lake and boiled in an open wooden trough, with a sheet iron bottom, will yield one bucket of salt; or, in other words, that it is one third salt.

The analysis of the water made under the United States Survey in 1850, says that the water contains more than twenty per cent. of pure chloride of sodium, and about two per cent. of other salts, making one of the purest and most concentrated brines known to the world. The specific gravity of the water is very great; this in the same analysis is given at 1.170, water being 1000. The water is so heavy or buoyant, that a person bathing in it can sit upright, with head, shoulders and arms out of the water, like sitting on a rocking chair; and a person can lie on the surface with head, hands and feet out of the water. In the lake the color of the water is a very deep dark blue, much more so than the ocean, but when taken in the hand it is transparent. The water in the lake is generally very shallow for long distances from the shore, and though it is deeper farther out, yet it cannot be said to be a deep lake. Its rapid changes, receding from one place and rolling out upon another, caused by the frequent and violent storms, which come sometimes suddenly without any premonition, sweeping over it with the resistless fury of tornadoes, render it very unsafe for navigation in boats; indeed, it is not considered navigable. This great salt lake is only used at present for boiling a little salt upon its dreary, desolate shores.

#### DOUBLE USE OF RAIMENT.

"If thou at all take thy neighbor's raiment to pledge, thou shalt deliver it unto him by that the sun goeth down; for that is his covering only; it is his raiment for his skin; wherein shall he sleep? And it shall come to pass, when he crieth unto me, that I will hear; for I am gracious." Exod. 22 : 26, 27.

In all parts of Southern Africa the skin-cloak is the covering of males and females by day, and that in which they sleep by night. They have no other bed-clothes. The Hottentot cloak is composed of sheep's skins, retaining the wool on the inside; in which he sleeps comfortably, under a bush or tree, wherever he goes. Deprive him of that covering, and he would find himself most uncomfortably placed. It would be a cruel act. The nations farther in the interior have cloaks made from the hides of oxen or cows, which they have a method of making soft and pliable, and use exactly for the same purposes as the others—namely, for clothing and sleeping in.—*Campbell's African Light*.

FLAX COTTON.—The Providence *Journal* says flax cotton is already becoming an article of commerce. Considerable quantities of it are prepared and find a ready market for various purposes, chiefly for mixture with cotton and wool. Although inferior to cotton for most purposes, it is equal to it for many and superior to it for some. It has fairly taken its place among the textile raw materials, and it will grow more important as the supply increases, as the processes for its preparation improve, and the uses for it develop.

## A DISCUSSION ON SHEEP.

One of the best features attending the State Fairs of the country is that of agricultural discussion by gentlemen from all parts of the State. These meetings are held in the evening, and in every respect have a most happy influence upon the cause. They excite a new love for it,—they instruct those who attend, and stimulate men to a greater interest in the State Society, and bring the members before each other in discussion and social intercourse, and produce a brotherhood of feeling in the profession throughout the entire State. How much better than “*a ball in the evening*,” which runs through the night and unfits persons for the duties of the next day. We found the practice of evening discussion current in Maine, when we were there last year, and thought it then one of the most delightful and influential features of the show. We hope they will become common all over the land.

From the *Prairie Farmer* we give below part of a discussion upon the subject of sheep, which occurred at the recent *Michigan State Fair*:

Mr. ROSENSTIEL, of Stevenson, claimed sheep to be profitable as weed-destroyers, money-makers and manure-producers. They ate the weeds that other stock would not eat, and thus rid and kept a farm rid of them. They were money-makers in many ways. They gave the farmer money for their wool, just before harvest—a time it is much needed. In the fall or winter they brought in an income on their wool. By raising sheep we will create home manufactories, and the money sent out of the country for broadcloths, &c., would be kept at home. As manure-producers, their value is proverbial. Ten sheep would do as well in the same pastures as one cow would. They afforded a great luxury in always providing fresh, wholesome meat. That with fruit and sheep, a man may live well without doctor's bills.

The French had been the most profitable with him, but he would not advise others which to select. Castrate the bucks young. Give the sheep sheds, dry land and feed-racks.

Mr. GORHAM, of Will.—Sheep should be in good order when cold weather commences. It will take less feed to make a sheep in good order and keep it so during the winter, than to keep a poor sheep from dying in cold weather. Spanish had been the most profitable with him; they are tougher and live longer.

He feeds half a bushel of corn per day to 100 sheep. He keeps from two to six bells on his sheep, and thinks it a preventive against dogs. His sheep are not killed, while his adjoining neighbor who has no bells on his sheep, loses many. French are not near as prolific as Spanish. He told his own experience by stating facts and figures, showing sheep-raising to be a very profitable business.

Here Mr. CLARKE, of Lake Co., who had attended the farmer's club in his own neighborhood, until he was able to ask questions that showed farmer's clubs to be very beneficial, seemed to prove by his questioning, that the wool of the

sheep did not, on an average, more than pay a fair interest upon the capital invested.

Mr. MURRELIT, of Ogle.—The gentleman seems to think he has made a point; but in reckoning the capital invested, he has spoken of the price of imported sheep, and then reckoned his income upon the average of the mixed breed. I would say that Mr. Rosenstiel had one buck from which he sheared 26½ pounds. And the gentleman's point is, that the wool does not pay more than a fair interest. Let him remember that the wether brings him seven dollars for mutton. And, besides the mutton, think of the manure. Why, in Germany, a man pays from two to three dollars per night to have a drove of three hundred sheep stay on his fields one night.

He went on to cite several instances showing that men engaged in general husbandry, were successful, and men who applied themselves wholly to any one branch, failed. He said that sheep paid. And as they did pay, he advised adding raising as another branch of farming, in order to help make a general husbandry.

He wound up with glowing assertions as to the prosperity, happiness and independence of the American farmer engaged in general husbandry.

Mr. CLARK, of Lake.—In our part of the country we have board fences, and after careful and accurate calculations, our farmer's club has come to the conclusion that sheep-raising will not pay there on a large scale. According to the calculations of our club, dairying is the most profitable branch of farming. But if women are scarce, horses and sheep pay as well as mixed husbandry.

Mr. BAUDER, of Winnebago.—In 1854, he paid \$150 for two ewes and a buck. It has proved one of the best investments he ever made. He does not feed much grain. In the fore part of winter, he feeds them the tops of his corn. Instead of grain he feeds roots. His fleeces average eight pounds of *clean wool*. He has on exhibition five fleeces which weigh fifty-three lbs. His average sale price is 30 cents per pound.

As his wool does not demand the usual price, he has packed it away. He rolls it as tight as possible and piles it in a dark room. In this way, the wool will increase in weight during the first six months, between three and four per cent. He considers the second cross between full bloods and hearty coarse sheep as useful to the farmer as full bloods. Prefers the Cotswold. Sheep pay better than anything else according to his observation and experience. Makes his wethers weigh 100 pounds at three years old. Sells the mutton from \$6 to \$8, pelt \$1, tallow 40 to 50 cents.

Mr. MOSS, of Boone, again urged the advantage of sheep in killing weeds. The farmer has nothing to sell of which he can transport \$100 worth as cheap as wool. Considers Spanish the best. Feeds plenty of grain. Thinks sheaf oats good feed for sheep. Sows rye for pasture. It does well. Considers shoulders the best part of fleece.

Mr. A. RICHMOND, Whitewater, Wis.—Bought sheep on time, and with the good care he gave them, he was able to pay for them out of the proceeds of the first shearing. Has a buck strongly tintured with Spanish that shears 11 pounds.

Bought a ewe that sheared 6½ pounds. By good care and breeding to his buck, the next year herself and lamb sheared 21½ pounds. The flock



which paid for itself the first clip, not only did that, but paid its expenses by what he sold out of it, and raised 24 lambs besides. Prefers threshed millet to Timothy. No other stock pays so well under his management. Sheep furnish three crops—carcass, wool and lambs.

Mr. SWITZER, of Elgin, after considerable experience in different breeds, thinks a cross between the Leicester and Cotswold the best. For protection against dogs he lets them stay with his cattle. Feeds Hungarian and Timothy about half and half. Considers that it is easier to keep eight sheep than one cow.

Mr. CLARK, of Lake.—Our farmer's club think that from four to six sheep are as expensive to keep as one cow. The dogs killed more than the profit.

Mr. ROSENSTIEL, of Stevenson, believes strongly in mixed farming. He keeps a daily journal and knows from his own figures, that sheep are easier kept than anything that brings the same income. By careful weights and measures of the feed used, knows that ten sheep can be kept as easy as one cow. Advises keeping a small flock, *not of the expensive breeds*. Poor farmers are almost sure to lose if they try keeping fine blooded stock. Has burned his own fingers to the amount of \$40,000. This very fine stock is artificially made. Buy some good hearty common sheep and one good blooded buck, and you will soon have a valuable stock. *Must have feed racks*. Dogs are the only drawback to profitable wool-growing in this State.

After a general discussion it seemed to be a universal conclusion that all that prevented sheep-raising being profitable was the devastation by the dogs.

#### TRADE PROSPECTS IN JAPAN.

A correspondent of the *New York World*, writing from Japan, March 18, says :

"Some people are never satisfied with the rate at which the world moves, however rapid it may be, and many here grumble at the slow progress of things. But for my part I am rather amazed at what has been done. After more than 200 years of exclusion from the rest of the world, (for I do not count the Dutch trade anything) we have now had twenty-one months' trade at Kanagawa. It is believed that fully \$7,000,000 worth of the products of this country were exported the last year. So far as I know, the Dutch never carried any silk from Japan; but 80,000 bales of silk have been exported within a twelve-month, since the ports were opened to the treaty powers. A few days ago a Japanese from a remote province, celebrated for the fineness of its teas, came to this place and solicited an introduction to some foreign merchant, through an American missionary, desiring to make a contract for the sale of teas. He said he could produce 30,000 chests of tea this year, and more the next. Moreover, he desired to see the Chinese process of firing the leaf, so as to be able to put it up in a fit condition for immediate transportation to Europe or America. I mention the case to show that the people of this country are beginning to open their eyes to the advantages of foreign commerce, and how the trade in teas, and silks, and other staple articles, will increase as time advances. To any

but an impatient, unreasonable man, the extent of the foreign trade hitherto, is certainly as great as could have been expected.

I have had some experience in China, and when I compare the liberty which foreigners enjoyed at Canton, in 1839, with that we have here, in 1861, I must say that the Japanese treat us with far more liberality than the Chinese did, and the accompaniments of a residence in this country two years or less, from the time the treaties went into effect, are much more agreeable than they were in China, after two hundred years of commercial intercourse with that country."

#### RELATIONS OF THE VEGETABLE AND ANIMAL KINGDOM.

There is a ceaseless round of force mutation throughout nature, each one generating or changing into the other. So that force which enters the plant as heat and light, &c., is stored up in its tissues, making them organic. This force, transferred from the plant to the animal in digestion, is given out by its muscles in their decomposition, and produces motion, or by its nerves, and constitutes nervous force—force stored up in the body—resistance to chemical affinity; this force produces directly from the solar rays. The solar rays cause those operations in the vegetable world, by which trees and plants absorb the carbonic acid gas which is expired from the lungs of animals, and by which those very plants also inhale pure oxygen gas during light, to revive the contaminated atmosphere and supply the lungs of man with the breadth of life. Trees and plants are essential to the health of the animal creation, and there is a mutual relationship between the two kingdoms. Respecting these beautiful and mysterious operations of nature, a distinguished writer has given the following literary gem :

The carbonic acid gas with which our breathing fills the air, to-morrow will be speeding north and south, striving to make the tour of the world. The date trees that grow round the fountains of the Nile will drink it in by their leaves; the cedar of Lebanon will take of it to add to its stature; the cocoa-nuts of Tahiti will grow riper on it; and the palms and bananas of Japan change it into flowers. The oxygen we are breathing was distilled for us a short time ago by the magnolias of the Susquehanna, and the great trees that skirt the Orinoco and the Amazon; the giant rhododendrons of the Himalayas contribute to it, the roses and myrtles of Cashmere, the cinnamon trees of Ceylon, and forests older than the Flood, buried deep in the heart of Africa, far behind the Mountains of the Moon. The rain which we see descending was thawed for us out of icebergs which have watched the polar star for ages, and lotus-lilies sucked up from the Nile, and exhaled as vapor, the snows that are lying at the top of our hills. Thus we see that the two great kingdoms of nature are made to co-operate in the execution of the same design, each ministering to the other, and preserving that due balance in the constitution of the atmosphere which adapts it to the welfare and activity of every order of things, and which would soon be destroyed were the operations of any one of them to be suspended. And yet man, in his ignorance and his thirst for worldly gain, has done his utmost to destroy this

beauteous and harmonious plan. It was evidently the intention of the Creator that animal and vegetable life should everywhere exist together, so that the baneful influence which the former is constantly exercising upon the air, whose purity is so essential to its maintenance, should be counteracted by the latter.—*Cornhill Magazine*.

#### HUSKING AND SORTING CORN.

There is no other department of farm business, probably, so slovenly and wastefully performed, as that of husking and putting away the Indian corn,—that profitable and beautiful crop upon which all, both man and beast, may almost entirely subsist. In a season like this, when we come to the middle of October without a nipping frost, and the preceding month of September has been full of bright, hot days and warm nights, all the crops have come to maturity, and the corn has so thoroughly ripened, it may be said that much pains in preparing it for winter is not necessary. What we say upon the subject, however, is for general application, and not for particular cases. There will not be many seasons like the present, when all the cereals, corn, vegetables, fruits, and even the new wood of the trees, have ripened into a maturity that makes the crops as perfect in quality as they well can be.

The last autumn was the reverse of this. It was rather wet, frost came early in September that prostrated the tender vines, and on the night of September 30th "there came a frost, a killing frost," that froze the grapes solid, partly froze apples on the trees in low places, and laid low all that was left of the green array of autumn in dreary decay. This frost found the corn in an unripe condition, with the husks about it so green as to cause them to cling to the ears and become slippery, and in this state it was difficult for even west winds and cloudless skies to bring it to maturity. The consequence was, that where unusual pains were not taken, the corn moulded in its bins, or on scaffolds, and had to be removed at a considerable loss of labor and of grain, and what remained would scarcely retain the true and peculiar flavor which Indian corn ought to possess before it has been "heated in the pile."

In order to prevent all this, corn must be properly *husked and sorted*, before it is put away. Standing by a bin of corn once, we heard a farmer say,—"*This is, certainly, the handsomest bin of corn I ever saw,*"—but he had raised just as good that season himself—the only difference in the crops being in the manner of husking and sorting it. In husking he had left many silks upon the ears, together with the tips not filled out with corn, and frequently butts ranging from half an inch to one or two inches in length! The only separation made in the crop was to take away that

portion of the ears which was decidedly green, and only partly grown, and which is usually denominated "pig corn"—the rest being thrown promiscuously into the bins.

The practice of his neighbor, at whose corn he was looking, was quite a different one, and was as follows: The directions given to the huskers were, to clean off all the silks, break off the tips that had no grain on them close down to the corn, and to take the butts off in the same way. The corn was then thrown into a pile in some clean and convenient portion of the barn—the husking being done in the evening—where the sun and air could reach it, where it was allowed to remain a longer or shorter time, according to the degree of ripeness which it had attained. In some cases one day would be enough—in others a week would be required before it would be safe to put it, in any considerable quantity, into bins. When it was thought sufficiently dry, a careful hand was selected to sort it. He made *three grades*, as follows:

1. The ripe and dry corn.
2. The unripe corn, no matter how large and beautiful the ears, and those that were small and imperfect, and too green to be dried readily under favorable circumstances,—making up what is commonly called "pig corn."
3. Those ears which were only partially filled, were scarcely "out of the milk," and should be fed out to fattening cattle or swine as fast as they are collected; for they will remain sweet but a very short time.

These three *grades* are carefully observed by the sorter, taking away all bits of husks, silks and butts that were left upon grades one and two by the huskers. If some of the butts are found too strong to be broken with the hand, he uses a small hatchet for the purpose. In this manner a considerable amount of moisture is taken away, which might endanger the keeping of the corn unless it is in a perfectly ripened condition. Such a bin of corn as this, all vermin being kept out, will remain sound and sweet for years. The second grade is of a conglomerate character, presenting well filled, but not fully ripened ears of a foot in length, and so on down to the merest "nubbins," together with broken and unsound ears. This lot should be used first, always selecting the greenest portions, so that they shall not delay the ripening process in that remaining. When corn is put away in this manner, it is always an attractive and gratifying sight,—for of all the favors of Ceres, none is more pleasant to the eye than that of the Indian corn; and the farmer who pursues this course will never find himself apologizing to his brother for the mean

appearance of his bins, and placing the scandal of his neglect upon early frosts and pelting storms!

Some may exclaim, that this mode will do for amateurs who have their single acre, but not for the farmer who has four or five hundred baskets to be husked and sorted. But that reasoning, we believe, is fallacious. If it will save five per cent. on the products of one acre, it will save, proportionately, on any number of acres. Indeed, after practicing this method for many years, we are fully satisfied that one thousand baskets of ears may be preserved in good condition, *quicker, easier and cheaper*, than by the practice now usually adopted.

#### THE NEW YORK APPLE-WOMEN.

A writer in the *Express*, in an article on the "Street Cries and Callings of New York," says:

The apple, and other fruit venders, are the most numerous of all the street dealers. By far the larger portion of them are women, who pursue their vocation with a quiet and decorum really worthy of a better, or at least a higher calling. Some of these women are marvels to all but themselves. With their stock spread upon a plain board, or an inverted barrel, and the luxury of a faded umbrella, such an one probably as Mr. Stiggins indulged in for a canopy, these patient watchers for the stray pennies of the children sit from morning till evening, year in and year out, never growing older, or weary, apparently, but pursuing their business with a perseverance most remarkable. Some of them seem to have families of little ones springing up around them, though when, or where, they take the opportunity to nurse the little bantlings, is a mystery. We have noticed some of this class in the lower wards of the city for many years—the same faces, the same children—seemingly of the same age, as when, years ago they first met the eyes of the wayfarer. Apple-women certainly must grow old as well as other people; but their children evidently possess some recuperative power, thus ever to have the look of youth. And yet the same dirty face looks up from the rear of the mamma that you saw a twelvemonth since, with no change, unless it be an extra coating of mother earth. These urchins, by the way, must get their peck of dust early in life, if the ancient proverb is true as to the rest of us.

Many of these women drive a profitable business. Nineteen-twentieths of them are of pure Milesian origin, and have the blarney in its native richness. They would put Stewart's salesmen to the blush in the eloquence of their descriptions. They have their locations, and if a street is torn up, a block burnt down, or torn down, their lease holds good. Their tenure is perpetual. Some of them are itinerants in the business. The residents on certain streets or blocks, or a number of manufacturing establishments, they claim as their especial patrons. On their arrival, with a well filled basket, at a given hour, they are sure to be found, passing from customer to customer, from store to office, and shop to factory, quietly disposing of an apple or a

peach, and then noiselessly departing. One fancies as he looks upon their silent movements, that they are a meek race, and so they are, as a general rule; but let a strange basket of nick-nacks appear, and lo! the scene changes. The spirit of Xantippe must have suddenly taken up its residence in the bosom of No. 1, for she threatens vengeance on her aspiring rival. Rivalry begets jealousy in smaller theatres than the Exchange, or the avenues of upper ten-dom.

#### EXTRACTS AND REPLIES.

##### SICK HENS.

I have several hens confined in a coop, and one chicken running at large, all suffering from a disease which appears like a lung complaint. They droop, lose their flesh, and at times seem strangling with mucus, which causes them to make a noise like a cough.

1. What is the remedy for it?
2. Is it contagious?
3. What is the name of it?

*Marblehead, Oct. 9, 1861.*

B. P.

REMARKS.—From the described symptoms we should think the fowls had *taken cold*, much as men or animals take cold. The respiratory organs are affected, mucus accumulates, and the poor birds at length find breathing exceedingly distressing. This difficulty is sometimes called asthma and catarrh in the books. We have had an occasional case among our fowls, but it did not spread. It is difficult to cure sick fowls. In this case, if the eyes and nostrils are obstructed, wash them in warm milk and water, keep the fowls where they will be quiet and warm, and offer them a variety of food, such as corn, mashed potatoes with meal and a little lard added mixed up with hot water, small lots of fresh meat or fish, oats, and plenty of succulent, green food, such as lettuce, cabbage and beet leaves.

##### TURNIP SEED AND A BIRD.

William Oxtou, of Thomaston, Me., says he sent to "E. L. Coy" for some German turnip seed, in accordance with his invitation, and got no return for his stamps.

I had better luck than Mr. Oxtou, for I sent him two stamps and an envelope directed to myself, which came promptly back filled with seeds. I have not tried the quality of his turnips yet, but they look very nicely.

Rowing on the Merrimac yesterday with some friends, we saw a bird floating on the water, and backed down towards it, thinking it a land bird wounded—got within a few feet of it, when it rose gracefully, flew circling one-fourth of a mile, and alighted again in the water! It was about half the size of a dove, which it resembled a good deal, of a dark ash or slate color, slender, curved bill, and a very domestic, contented expression of countenance. Will some one of your ornithological readers tell me what it was?

MORRIS SPOFFORD.

*Groveland, Oct. 10, 1861.*

## SQUASHES AND PUMPKINS.

Will you inform me where is the most preferable place to keep squashes and pumpkins through the winter, so they will be free from rot? Also, what species of squash and pumpkin you would prefer to plant the next year as the most profitable?  
A YOUNG FARMER.

*East Saugus, Oct. 9, 1861.*

REMARKS.—That place which is dry, and has the most even temperature, will be likely to keep squashes and pumpkins the best. We keep them perfectly every year until May, in a brick oven and an ash pit for which we have no other use. On shelves, high up in the kitchen, they will usually keep well. The Marrow and the Hubbard, are the two squashes mostly in demand in market. The old Canada Crook Neck is also an excellent squash, but does not sell as readily as the others mentioned.

## SOIL STICKING TO POTATOES.

I wish to be informed what is the cause of my potatoes being completely covered with dirt, which cannot be washed off, but which sticks so tightly that, in many cases, the potato must be entirely pared to free it from dirt. I do not know but it may be caused by mixing ashes with the plaster I put on them.

Will some one give an opinion upon the subject?  
A READER OF THE FARMER.

*Ware, Oct. 8, 1861.*

## HOW TO WALK IN COMFORT.

## SOMETHING ABOUT BOOTS AND THEIR EVILS.

The bootmaker, ignorant of the relative use and importance of the different parts of the foot, has steadily persisted for centuries, and at this day usually persists, in so shaping the shoe that the great toe is forced upon the other toes more or less out of its right line with the heel. Nine civilized people in ten, perhaps, have their great toes thus by a course of submission to mishappen boots and shoes so far turned inwards, that a line run down in the middle of them from point to ball, if continued, would not fall any where in the heel at all, but several inches away outside the body. The necessary consequence is, that the full strength of the natural lever for raising the body is destroyed; the effort has to be made at a disadvantage, and with pressure; the act of walking loses some of its grace and much of its ease: so that although the boot may be so well adjusted to the spoilt shape of the foot, as to cause no pain, an honest twenty or thirty mile walk is more than hampered foot-machinery has power to sustain.

For this reason, says Dr. Meyer, it is wrong to suppose that because a shoe is easy it is right, or that a cast of the foot, unless it be a healthy one, would make the best last for the shoe it is to wear. Allowance should be made for the gradual return of the great toe to its place, by leaving its place (to some extent at least) vacant for it, and permitting gentle pressure where the joint has been forced into undue projection. When the shoemaker now tells a customer that he treads very much on one side, he in fact compliments him by the information that he has a healthy and unsub-

jugated foot, determined to tread straight. It is precisely because children's feet are only in the first stage of injury, and are more nearly as God made them than as they are destined to be made by the shoemakers, that children especially come into trouble with the shoemakers, or with the parents and guardians who believe rather in shoes than in feet, for "treading on one side." A strong and healthy foot tramples a foolish shoe out as far as possible into the form it ought at first to have had. Even the distorted foot, after the shoemaker has done his worst, will often tread over the leather of the inner side of the boot-heel, because of a natural effort of the foot-heel to bring itself into some approach to the right line with the great toe.

In a properly made shoe, then, the great toe and the heel have their right relative places furnished for them. And, since they are to be in a line together, it must follow that if a well-made pair of boots be placed side by side so that their heels touch, their sides also will touch through the whole space in front of the instep from the place of the ball of the great toe to the very end of it. They will diverge only at the rounded ends, where the great toes round off into the little toes, along whose line, and nowhere else, any possible pointing of the shape of the boot-sole can be got.—*Dickens' All the Year Round.*

BRISTOL CO. CENTRAL EXHIBITION.—The exhibition of stock of all kinds was particularly fine, and some idea of the rivalry stirred up among the farmers may be formed from the number of competitors. There were thirty each of working and drawing cattle, the same number of breeding horses and colts, of fat cattle and steers twenty, working horses fifteen, family horses ten, sheep and swine twenty-four, bulls seventeen, and poultry twenty-one.

The important entries in the other departments were in the plowing match seventeen, agricultural products and vegetables thirty-nine, butter, cheese, honey and bread thirty-one, fruits and flowers nineteen, spading three, domestic manufactures one hundred and seven, and heavy manufactures sixteen. The programme, as carried out, gave much satisfaction to the several thousands assembled, and was about as follows, including a meeting of the society to nominate officers, earlier in the morning: At 9½, spading match; 10, plowing match; 1, drawing match; 2½, trial of family horses; and 4, foot races. Between the plowing and drawing matches, a procession of town teams and all the stock on exhibition moved round the half mile track. Dinner and speeches in Railroad Hall.

REMOVING SUNBURN.—If our young lady readers would like to know what will take off tan and sunburn, let them take a handful of bran, pour a quart of boiling water on it, let it stand one hour, then strain. When cold put to it a pint of bay rum. Bottle and use it when needed.

## NORTH MIDDLESEX CATTLE SHOW.

The day was splendid. Exhibition began with the *Plowing Match*. Four double ox-teams and three horse-teams engaged in the contest. The match excited much interest. The show of horses was large, and many of the animals excellent. The number of entries of cattle in all, was 90. Sheep 19 entries, swine 20, and there was a good display of poultry. The display of vegetables was very fine. Not much fruit, but a pretty good show of peaches and plums. Fifty-two entries were made for the premiums on bread, all of which was said to be excellent. Of butter, there were 17 entries, and several boxes of honey. There was a large display of needlework, handsome carpets, shawls, flannels, &c. There were several farm implements, and the Winans Steam Gun!

A dinner was provided on the Fair Grounds, after which an address was delivered by Dr. GEORGE B. LORING, of Salem, which was, of course, a good one.

TO HOLD A HARD-HEADED HORSE.—I wish through the medium of your common-sense paper, to describe a simple method of holding a fiery, hard-bitted or run-away horse. Put the buckle or snap of the rein *through* the bit ring, and fasten it to some part of the bridle between the ears and mouth of the horse. The advantage of this easily and quickly made arrangement is two-fold:

1st. It draws the bit into the corners of the mouth, whatever be the position of the horse's head.

2d. The force exerted on the bit in this manner by the same power at the end of the rein, though not quite doubled, is very much greater than when the rein is attached simply to the bit. By this means, I have seen the most fretful and ungovernable animal immediately converted into a serviceable plow-horse, while my eased limbs and shoulders gave direct testimony in favor of the diminished labor of managing the team.

The arrangement is also convenient in driving an ill-matched team, one horse being a fast, and the other a moderate traveller. Arrange the reins as directed for the fast horse, leaving the others in the common way.—N. P. BLAKESLEE, in the *American Agriculturist*.

THE CROPS IN PENNSYLVANIA.—Farmers state, says the *Harrisburg Patriot*, that the autumn crops are full and abundant. The corn is fast ripening, and roasting ears are only procurable from corn planted late for the purpose. Potatoes will be plenty and cheap. The only crops that remain beside corn and potatoes are buckwheat and ruta baga turnips. These are doing well, and the lovers of buckwheat cakes may smack their lips in anticipation. To the agricultural community this fall is a lucky one. Their barns will be filled to bursting, while the prices will be such that between now and next spring many a long, lingering mortgage will be stricken from the record.

## LADIES' DEPARTMENT.

## THE PERFUME OF FLOWERS.

An English writer regrets the waste of flowers in many gardens, and recommends their use in perfumery for domestic purposes. He says:

The cultivation of flowers for this purpose is carried on to an enormous extent in the south of France; the weight of blossoms from which the odor is there extracted being reckoned by thousands of pounds. Highly purified fat is used for the purpose of absorbing the scent, which is thus transferred to the perfumer, who then extracts it from the fat by the aid of spirits of wine, for which it has a still stronger affinity. Why should we not grow flowers for their odors as well as for their colors? There are scores of flowers in our gardens that would yield admirable extracts with a little pains. For instance, there is heliotrope, the lily of the valley, honey-suckle, myrtle, clove pink, and wall flower. We have extracts from all these flowers in the perfumer's shops, but they are nothing but skillful combinations of other scents. He further suggests that every lady might be her own perfumer, and give us a receipt for obtaining scent from heliotropes, or any other sweet-scented flower. Now that our gardens are in full beauty and perfume, some of our fair readers may like to try the experiment for themselves, and we therefore give them the benefit of the receipt:

At the season when the flowers are in bloom obtain one pound of fine lard, melt it and strain it through a close hair sieve to drop into cold spring water; this operation granulates and washes the blood and membrane from it. In order to start with a perfect inodorous grease, the process may be repeated three or four times, using a pinch of salt and a pinch of alum in each water; it is then to be washed five or six times in plain water; finally, remit the fat and cast it into a pan to free it from adhering water. Now put the clarified fat into a glue-pot, and place it into such a position near the fire of the greenhouse, or elsewhere, that will keep it warm enough to be liquid; into the fat throw as many flowers as you can, and there let them remain for twenty-four hours. At this time strain the fat from the spent flowers, and add fresh ones; repeat this operation for a week; we expect, at the last straining, the fat will have become very highly perfumed, and when cold, may be justly termed *pomade a la heliotrope*. To turn this pomade into an extract fit for the handkerchief, all that has to be done is to cut the perfumed fat into small pieces, drop it into a wide-mouthed bottle, and cover it with highly rectified spirits, in which it must remain for a week. When strained off, the process will be completed.

TOMATO PICKLES.—Slice green tomatoes and put them in salt and water for three or four days. Scald them in alum water; then place a layer in the bottom of a jar and sprinkle on a little sugar, allspice and cinnamon; put in another layer, and sprinkle as before, and so on until the jar is nearly filled, and then cover them with scalding cider vinegar.—*American Agriculturist*.

**CUCUMBER TOAST.**—Select your cucumbers—fresh, crisp, medium size—just as you would prefer if served up in the usual manner; pare and slice lengthwise in cuts a quarter of an inch thick; rinse in cold water; dip each singly in flour, and hurry them into the dripping pan, using for material to fry them the gravy in which either beef-steaks, veal-cutlets or mutton-chops were cooked, or butter may be used; but be sure to fry briskly until the slices are a light brown on both sides, have your bread toasted, buttered or dipped, as you prefer, and close at hand; slip the slices of cucumber hot from the pan between slices of toast and serve at once. Any one following these directions implicitly, will find cucumber toast really good to eat.—*American Farmer*.

It must be somewhere written that the virtues of mothers shall occasionally be visited upon the children, as well as the sins of the father.

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## YOUTH'S DEPARTMENT.

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### OUR PARENTS.

Not long since, as I took my seat in the cars for a day's ride, I observed, seated opposite me, an elderly lady and middle-aged gentleman, who, I inferred from some casual remark, had been travelling a day or two. It was a very early hour in the morning, and the lady apparently was sleeping.

We rode in silence for some time, when the lady awoke, and I heard the gentleman address her as mother. His dignified, unobtrusive manner, and the tender, deferential tone of his voice, at once drew my attention to them, and having no company, my eyes and my thoughts were my own.

All the tender care which a mother could bestow on an infant child, were given by that son to his mother. The slightest movement on her part to adjust her furs, or cloak, or over-shoes, or any change of position, called forth his ready hand in assistance, and the inquiries, "Are you comfortable, mother? Do you feel tired? Lay your head on my shoulder, and rest yourself."

At noon the cars stopped for the passengers to obtain refreshments. It was snowing too fast for the mother to go out of the cars, and the son brought her a cup of coffee.

"Is it just right, mother?" he inquired as she tasted it.

"A little more cream would make it better; it is, however, very good as it is," was her reply.

"Let me get you some more."

"No, my son, it will make you too much trouble; it is very good as it is."

He went out and soon returned with the cream, and poured a little into the coffee, and then a little more, until it was "just right." He then sat down by her side, and I heard him say, in the same low tone of voice that at first attracted my attention, "I am glad, mother, that I can do anything to make you comfortable, it is such a pleasure to me."

"I thank you, my son," she replied in the same spirit and tone of voice as that of her son.

Beautiful, thought I, as I quietly watched them, and saw manifested their mutual love and confidence. My mind went back to the time when

this son, now in manhood's strength, was a little helpless infant, and I pictured that mother watching over him, caring for him with a solicitude such as mothers only can feel. And through all the years of childhood and youth, up to manhood, the watchful eye was ever over him, the guiding hand ever ready to lead, and a mother's love ever ready to restrain him from doing wrong. Now it is his turn, when life's meridian with her is past, and the infirmities of age are creeping on, to repay, in some degree, for all the labor bestowed on him, and faithfully and affectionately did he seem fulfilling his duty.

How many grown up sons there are who seem to feel it beneath them to show any tenderness for their mothers. It is feminine, they say. They will perform acts of kindness, but in a business kind of a way, or because it is their duty, little dreaming that they are crushing the maternal spirit by such cold, heartless acts.

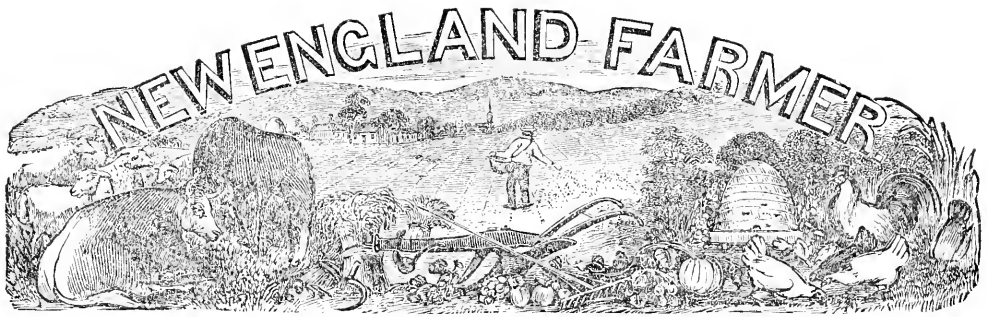
Acts of kindness, done in the spirit manifested in the incident above mentioned, have an untold influence. The pathway down to the grave would be cheered, made even joyful, and old age would be exempt from much of the gloom that is often experienced.

The reflex influence is also great. A young man who is habitually tender of his mother, and deferential to her, will make a good citizen, a true friend, and will be faithful in all the walks of life.—*The Witness*.

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### A BOY'S POCKET.

About the greatest curiosity to be met with in this common-place, every-day, hum-drum world of ours, we unhesitatingly pronounce the contents of a boy's pocket. Peep into that pocket when you will—whether at night as he goes to his bed, or in the morning as he goes to his play; or whether at home or abroad, at school or in church, any where and every where, and you will find his pocket a perfect curiosity-shop, a very *omnium gatherum*, into which is ruthlessly crammed every article that comes into his hands, without its ever being too full to hold the last object upon which he lays fingers. A little urchin of some ten summers' growth invited his mamma the other day, in our presence, to repair a slight accident to a pantaloons-pocket, and to do this, it became necessary to upset the contents of master Willie's pocket upon the floor, an exact inventory of which we proceeded to note down as follows: An Indian rubber, a bottle-cork, an old gas-burner, one nine-pin, a part of an exploded fire-cracker, an old spool of cotton, a small block, part of an old match-box, one old envelope, a bag of marbles, one hickory-nut, piece of silk cord, several pieces of twine and strings, the lid of an old pill-box, pieces of chestnut hull, a piece of ginger-cake, a piece of tin, a rabbit's tail, pieces of fancy-colored paper, two old nails, a small picture-book, a slate-pencil, a broken jew's-harp, the remains of a pocket-handkerchief, a penny whistle, a piece of shoe-string, two grains of corn, a pocket knife-handle, half a peach-stone, two spotted chicken-feathers, a piece of brick-bat, a spinning-top, a dead mouse, an assortment of buttons, with crumbs of bread, candy, and a mixture of sand, pebbles and dirt generally.



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NOURSE, EATON & TOLMAN, PROPRIETORS.  
OFFICE...34 MERCHANTS' ROW.

SIMON BROWN, EDITOR.

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HENRY F. FRENCH, } EDITORS.

CALENDAR FOR DECEMBER.

\* \* \* Low the woods  
Bow their hoar head; \* \* \*  
Earth's universal face, deep hid and chill,  
Is one wide dazzling waste, that buries wide  
The works of man. Drooping, the laborer-ox  
Stands covered o'er with snow, and then demands  
The fruit of all his toil. The fowls of heaven,  
Tamed by the cruel season, crowd around  
The winnowing store, and claim the little boon  
Which Providence assigns them.—THOMSON.



DECEMBER, the last of the annual train of months, has at length arrived. — The golden gates of autumn are closed. *Winter* is spreading his frosty mantle over the earth, introducing to the view new landscapes, and new forms and colors, and establishing a realm of its

own. Vegetable life is fast becoming extinct; it sprang gladly into existence under

the kindly influences of spring, was strengthened and sustained by summer dews and showers, and perfected by the genial suns of autumn. But it is all just as glorious in its decay, as it was in its progress to perfection; it has fulfilled the objects of its existence, in its youth, in its strong and lusty maturity, and in age, and now bows in obedience to that unvarying law of change which controls all that composes this transient earth. Is not this one of the rich lessons that autumn affords to intelligent beings,—to bow in filial submission to the laws of nature, and come to the later period of existence laden with heavenly affections and the good purposes

of life, as the plant is laden with the shining and perfect seed? The feathered tribes have hied away to sunnier climes. The denizens of the forests have sought shelter in the caves and fastnesses which nature provides, while domestic animals are hovering about the habitations of man, and dependent upon him for that shelter and sustenance which their own instincts would fail to secure. The busy hum of insect life has ceased, and during some entire days a calm and impressive stillness everywhere prevails.

In the aspect of the external world during this month, there is much that is striking. The exchange of autumn's gay livery for the sombre drapery of winter, the passing away of most that is attractive and especially pleasing to the eye and the ear, and the ushering in of the stately storm-king, with all the chilling paraphernalia of clouds and tempests, is calculated to chasten our desires, and awaken feelings tinged with the more sober views of life.

But December is not without its charms, by any means. It depends much, however, upon our habits of thought and observation, whether we are attracted towards external nature, and pleased with her aspects or not. All may be barren and uninteresting to one, where another may find beauty and instruction in all his paths. There is certainly nothing from the hands of the Creator but is filled with lessons of wisdom and love, and he whose heart is properly attuned, and beating in unison with nature's works, may find in every season much to awaken emotions of pleasure, and more that is mysterious and incomprehensible to excite his wonder and admiration.

December is the month of *plenty*, literally, the *harvest-home*. The store-house, the granary, the cellar and the larder being filled, there seems to be propriety in regarding it as a fit time for *feasting*, and enjoying the fruits of our labors.

The Jews had a festival, commemorating the ingathering of their crops, when, with most lib-

eral ovations, they acknowledged the goodness of a bountiful Providence. Our forefathers, in imitation of their example, instituted an autumnal festival, which, from that day to the present, has been observed as *the holy-day* of the year. These occasions, with their accustomed gatherings of scattered households and reunions of near relatives, with the promptings of dependence and gratitude which they excite, have a salutary effect upon the heart by leading it to the Source of all our blessings, and by awakening the better impulses of our nature.

In these times of making haste to be rich, when eagerness to see and enjoy the "good time coming" seems almost to obliterate all recollections of, and destroy respect for, the good times and customs of the past, it is gratifying to reflect that this precious relic, this good old puritanic festival, denominated "Thanksgiving," is still hailed with joy, and duly observed by all of New England extraction. Very far distant be the day, when the shadows of Thanksgiving luxuries and Thanksgiving gratitude shall be less.

The dark clouds, cold winds and forbidding aspect abroad, make more grateful the *fireside* comforts within. All our ideas of pleasure are referable to the principles of contrast. Had we never felt the cold, we should remain ignorant of the genial and delightful influences of warmth. Hence the pleasure we feel, in witnessing the progress of a storm, when we can look out upon it, secure from its piercing winds or driving sleet, and feel that the social hearth and comfortable bed are ours through the dark and dreary night.

This, too, is emphatically the season for cultivating the *social affections*. Family gatherings, social parties, calls and hymeneal embarkations, are matters of every-day occurrence. Now is the time for *mental culture*. No longer called by cares in the external world, the mind naturally turns in upon itself. Exemption from labor and the division of time both favor literary pursuits, and make this the season for *study*. Vigor of body, imparted by rest from exhausting labor, and by cool, bracing weather, gives activity to the mind, and fits it for the acquisition of knowledge. Schools, lyceums, institutes, and all the machinery of popular education, are now in full operation. And those who would become wiser and better, as they grow older, should improve the golden moments as they pass.

December is the fit time to make a settlement of arrearages, to take a retrospect of the past, and plan for the future. As the merchant, the manufacturer and the mechanic close up their accounts and balance their books, at the close of the year, so should the farmer adjust his accounts and make out his balance sheet, that he may know the re-

sult of his labors, and understandingly plan for the coming season.

The close of the year is a fitting time for all, of every vocation, to review the past—to take a faithful inventory of their mental, moral and physical possessions, and see what progress they are making in preparation for the closing scenes of life.

*For the New England Farmer.*

#### GOSSYPIUM ARBOREUM.

Is this plant a new species of Tree Cotton, peculiar to Chili and Peru, or is it the old species *Gossypium Arboreum* introduced into Great Britain from the East Indies as early as 1694? It is now cultivated in India, near temples and habitations of Fakirs, and is said to be sacred to the Hindoo deities, and therefore only employed for making muslin for turbans. It is found in all parts of India, Arabia and Egypt. I cannot find that it has attracted much attention in England, and is not enumerated among the plants described by Loudon, as now cultivated in Britain. The genus of *Gossypium* contains seventeen or eighteen species, and the Cotton Tree of India is the only shrubby plant which is noticed by botanists, so far as I now can discover. I hope and trust that this plant will prove to be as valuable as Mr. Kendall supposes it to be, and will not hereafter be classed with the China tree corn, China sorgo, *morus multicaulis*, and other vegetable novelties. S. P. FOWLER.

*Danversport, Oct. 26, 1861.*

**THE HUMAN HAIR.**—It would appear that the beautiful golden hair owes its brightness to an excess of sulphur and oxygen, while black hair owes its jetty aspect to an excess of carbon and a deficiency of sulphur and oxygen. Vanquelin traces an oxyd of iron in the latter, and also in red hair. The coloring matter, however, forms but one portion of the difference existing between the soft luxuriant tangles of the Saxon girl, and the coarse blue-black locks of the North American squaw. The size and quality of each hair, and the manner in which it is planted, tell powerfully in determining the line between the two races.

An eminent German has undergone the enormous labor of counting the number of hairs in heads of four different colors. In a blond he found 140,400 hairs; in a brown, 109,440; in a black, 102,962; and in a red one, 88,740. What the red and black heads wanted in number of hairs was made up, however, in the greater bulk of the hairs individually; and, in all probability, the scalps were pretty equal in weight. It is to the fineness and multiplicity of hairs that blond tresses owe the rich and silk-like character of their flow—a circumstance which artists have so loved to dwell upon.

**A LARGE TURNIP.**—Mr. B. F. ELLIS, of East Bridgewater, has left with us a turnip of the Purple Top variety, which weighs, without leaves or roots, ten and a quarter pounds, and is nearly a Sabbath day's journey around it.



For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 16.

WARBLERS.

Hemlock Warbler---Autumnal Warbler---Bay Breasted Warbler  
---Chestnut Sided Warbler---Pine Warbler.

The HEMLOCK WARBLER, (*Sylvicola parvus*, Jardine; *Sylvia parvus*, Wilson,) was discovered, and first described by Wilson, in 1812, and subsequently by Audubon, Bonaparte and Nuttall. It does not appear to be a very common species, if, indeed, it is entitled to rank as a distinct species, which has been much doubted by competent ornithologists; and we have but little information concerning its history. It derives its name from being commonly observed among the thick boughs of hemlock trees. Wilson observes as follows concerning its habits: "It is a most lively and active little bird, climbing among the twigs, and hanging like a Titmouse on the branches; but possessing all the external characters of the Warblers. It has a few low and very sweet notes, at which times it stops and repeats them for a short time, then darts about as before. It shoots after flies to a considerable distance; often begins at the lower branches, and hunts with great regularity and admirable dexterity, upwards to the top, then flies off to the next tree, at the lower branches of which it commences hunting upwards as before."

Later authors are disposed to consider the Hemlock Warbler identical with the following species, the *Autumnal Warbler*, regarding the Hemlock Warbler as the adult; of which there is some degree of probability. Among those who support this view are Drs. Brewer and DeKay, and other eminent ornithologists, while Prof. Baird, as observed in the preceding number, makes the Hemlock Warbler the Blackburnian Warbler, (*Sylvicola Blackburnia*;) in its autumnal dress; and disposes of the Autumnal Warbler by making it identical with the Bay-Breasted Warbler, (*Sylvicola castanea*;) considering it merely that bird in immature or autumnal plumage; and for the support of either conclusion there seems but a small degree of probability. Audubon, Nuttall and Bonaparte, as well as Wilson, consider the two as distinct.

The Hemlock Warbler is five inches and a half in length, and eight in extent; upper parts black, with streaks of yellow olive; upper part of the head yellow, with minute black spots; beneath yellow, deep and bright on the breast, and paler on the belly, with dusky or black streaks on the belly and breast; wings barred with white, and the three exterior feathers on each side of the tail, white on their inner vanes.

The AUTUMNAL WARBLER, (*Sylvicola autumnalis*, Jardine; *Sylvia autumnalis*, Wilson,) considered by some (as above noticed) as the young of the Hemlock Warbler, is common here in the fall, arriving in September from the North, (some, however, probably passing the summer in the extreme northern parts of New England,) and for about two weeks is quite numerous, frequenting alike the orchards, gardens, thickets and forests of all kinds, though apparently preferring birch to other trees, as they pass leisurely southward to their winter quarters beyond the United States. They are exceedingly active, and while searching for their winged food, occasionally emit their low,

sweet warbling song, which, at this "melancholy season," may be listened to with peculiar pleasure. Wilson first described this species, and only meeting with it in the autumn, gave it the name which it bears. Audubon, however, seems to have been more fortunate; and after observing that it makes its appearance in the lower parts of Louisiana early in March, and after spending a few days hurries rapidly northward, hardly stopping until it reaches the remote parts of the State of New York, he states: "I have found it breeding in the immediate vicinity of the Cayuga Lakes, and on the borders of Lake Champlain, in retired parts of the woods, which it seems to prefer during summer months. I have also found it in the lofty forests of that portion of Pennsylvania, usually called the Great Pine Swamp. The nest, like that of many other *Sylvia*, is partially conical and pensile, and is formed of the soft bark of vines, lined with the down of various plants. The eggs are from four to six, of a white color, tinged with red, and sprinkled with brownish dots at the larger end." Observing the female sitting as late as the 20th of August, he concludes that this species rears two broods of young each season.

The length of this species is four and three-fourths inches; extent eight inches; general color above light green olive, (with obscure dusky stripes in autumn;) beneath yellowish white; the upper part of the breast dull yellow; white bars on the wings, and white spots on the exterior tail feathers.

The BAY-BREASTED WARBLER, (*Sylvicola castanea*, Swainson; *Devroica castanea*, Baird,) is one of our rarest Warblers, concerning whose history but little is known. It is occasionally seen here in spring, generally in May, while on its way to more distant northern regions, and is again very rarely met with on its return southward in autumn. Audubon speaks of something peculiar in regard to the appearance of this bird in different parts of the United States in spring. He relates having met with them in Pennsylvania, New Jersey and New York as early as the beginning of April, where they are seen but for a few days, and in Louisiana as late as the latter part of June, "when the cotton plant was covered with blossoms, amongst which they were busily searching for food." But neither Audubon nor Wilson are able to give us further information of the habits of this bird. The present year I shot a male of this species the 20th of May, in this vicinity, the only one I met with during several days of hunting.

The Bay-Breasted Warbler measures about five inches in length, and eleven in extent; crown, fore neck, breast and sides under the wings chestnut or bay; abdomen and lower tail coverts white, tinged with reddish; forehead, cheeks and line over the eye black; upper plumage generally yellowish-gray, spotted and streaked with dusky; tail, as usual with the Warblers, marked with white; and there are white bars on the wings. The female is similarly marked, but has the colors paler.

It appears that there is, or has been, much dispute in regard to whether the four Warblers last described (Blackburnian, Hemlock, Autumnal and Bay-Breasted) are merely four nominal species, some only representing the immature states of plumage of the others, or whether they really con-

stitute four distinct, genuine species. Both views of the question have had authoritative advocates; and as late as 1858, Baird, in his *General Report upon the Zoology of the several Pacific Railroad Routes*, part II., (vol. IX. of the reports on the Pacific Railroad explorations and surveys,) not satisfied with the previous arrangement of ornithologists of note,—uniting the Hemlock and Autumnal Warblers under *Sylvicola parus*, making three species from the four nominal ones—makes but two out of the four, referring *S. parus* to *S. Blackburnii*, and *S. autumnalis* to *S. castanea*, a proceeding that, considering the facts furnished by older authors, at present seems almost unwarranted. Their first describer, and subsequent writers of the highest note, observed and described them as distinct, and with apparent good reasons; and thus we now leave them.

The CHESTNUT-SIDED WARBLER, (*Sylvicola Pennsylvanica*; *S. icterocephala*, Swainson; *Dendroica Pennsylvanica*, Baird.) is not unfrequently met with in various parts of New England, throughout the summer. They arrive from the South early in May, and generally frequent low thickets or moist woodlands, where they generally remain during the summer, after building their nests in swampy and retired situations, and seldom appear in cultivated grounds. The male possesses a short, but very agreeable song. They construct their nest in bushes, (according to Dr. Brewer,) laying three or four milk white eggs, marked with purple blotches. They doubtless rear two broods in a year, as I have observed them feeding their young late in August, in the central portions of New Hampshire and Vermont. Several pairs have taken up their residence in my immediate vicinity the present summer, but all my efforts to discover their nests have thus far been fruitless. South of New England it does not appear so common, although its habitat is considered to be the whole United States eastward of the Mississippi. Wilson considered it very rare, and speaks of it as “one of those transient visitors that pass through Pennsylvania, in April and May, on their way North to breed.” And Audubon observes that the only ones he ever met with were five that he shot in the same State, one cold May morning, when there was a light snow, although at the time peach and apple trees were in bloom.

Length five inches; extent seven and a half; upper parts streaked with black and gray, and skirted with glossy olive green; crown brilliant yellow; front, line over the eye and auriculars white; lores and a patch beneath black; a streak of bright chestnut descends along the sides of the neck and body; rest of the under parts white. The female is slightly smaller, and has the colors paler. This is one of our handsomest species.

The PINE WARBLER, (*Sylvicola pinus*, Audubon; *Dendroica pinus*, Baird,) or Pine Creeping Warbler, as sometimes described, is a common species in our pine woods throughout the summer, and is often among our earliest spring visitants, being the earliest of all the Warblers in its arrival. The present year I observed them the 4th of April, at which time a recent snow covered the ground, to the depth of several inches, and portions of it remained for a week. The lively twitter of numerous individuals could be heard in the pine woods, from the tops of the lofty pitch pines,

(*pinus rigidus*,) where they hunted their food among the thick branches, for several days, while the ground beneath was wholly snow clad. During the last weeks of April and the first of May, they frequent open fields, particularly orchards and gardens, obtaining much of their food from the ground, continually wagging their tails as they flit about, and appear quite unsuspecting of harm. A little later they retire to the pine forest, in which they almost exclusively remain during the summer, where they rear their young, placing their nest, it is said, in the fork of a horizontal branch, and lay four white eggs, marked with a few dark brown spots at the greater end. Late in autumn it retires southward; and Wilson states that it remains throughout the year in the pine forests of the Southern States. In hunting for its food it is very active, sometimes creeping along the trunks of the tree, or hanging from the extremities of the branches in various postures, like the Chickadee or Titmouse.

Length five and one half inches; extent nine; upper parts lively yellowish-green olive; beneath yellow, fading into white on the belly and lower tail coverts. The female has the colors much paler. The VIGOR'S WARBLER, (*Sylvia Vigorsii*,) described by Audubon as a new species, was merely the young of the Pine Warbler.

*Springfield, 1861.*

J. A. A.

*For the New England Farmer.*

#### UNDERDRAINING.

RESPECTED FRIEND:—In the last number of your valuable paper, I see an inquiry made by a “Constant Reader,” “What is the best manner of underdraining swamp land?” That is a very important question, for I consider land that is well underdrained the best land we have.

I will state, briefly, some of our experience in underdraining. For the last six or seven years we have been improving our wet lands, whether swamp meadow, or wet upland, by underdraining. We dig a ditch around the low, wet land, next to the upland, wide and deep enough to drain the land well; then fill the ditch with stones carted from our fields that we are glad to get rid of; then scatter over the stones in the ditch, some poor meadow hay or straw, and cover over with the material taken from the drain.

This kind of a ditch, with a few small side drains extending to the main one, (if they are needed,) drains our land effectually.

Four years since we underdrained about 4½ acres of low meadow and wet upland, where we used to get from one to three tons of poor meadow hay. Last year we took eight tons, this season thirteen tons of the best of English hay. The water flows freely through all of our drains, and I have no doubt but it will continue to do so.

Perhaps you may inquire, “How did you prepare the land after draining?” We plowed when we could; and when we could plow we dug round the rocks and settled them about a foot below the surface of the ground; thus raising, instead of settling the ground, as we should have done by removing the rocks. We carted on gravel, loam and compost enough to cover the ground well, and fill up among the hassocks. What we plowed was planted with corn, potatoes and garden

sauce the first two years, 1853 and 1859. The first year we manured in the hill; the second year we spread on about twenty loads of compost to the acre; had very good crops both years. As soon as the crops were removed from the land the second year, (early in the fall,) we seeded down to grass with timothy, redtop and clover; harrowed, bushed and rolled well with a heavy roller, so as to make the ground quite smooth and even.

When we had finished preparing the land for grass, and seeded it as above stated, we calculated the expense we had been at and the value of the crops taken from the large field, up to that time, and found that we were well paid for all that we had done to the land.

The next season after seeding down to grass, we took, (as before stated,) eight tons, and this year thirteen tons of the best of hay. We mowed about half of the lot twice, and could probably have taken two tons more where we did not mow the second time. In estimating the expense, we did not include the manure we put on the land, but everything else was included. I think well of this kind of drain, especially where we have rocks and stones we want to clear from our land; for by this way, as the saying is, we "kill two birds with one stone," clear our field of rocks and drain our land at the same time.

AUGUSTUS H. GROSVENOR.

*Shaker Village, Harvard, Mass., Oct., 1861.*

*For the New England Farmer.*

#### RETROSPECTIVE NOTES.

A PLEASANT HOME.—At page 444 of October number of this journal, we find an interesting article by JUDGE FRENCH, with the above heading. And even if the Judge had not written in as interesting a style and manner as he has, still there would have been a degree of attractiveness about the communication, as the very title could scarcely fail to suggest, in most minds, a train of interesting reflections, aspirations and longings, and to set imagination and constructive faculties to work, either in castle-building or in planning or re-constructing a more substantial home. *A Pleasant Home!* this is or should be the ultimate aim and object of all the labors of the farmer, as also, indeed, of all other men. *A Pleasant Home!* without this what avail all the plans and projects of the head, all the toils and various labors of the hand, all our industry, all our gains, all our accumulations of property, and all our gathering together the means of enjoyment!—all these may be regarded but as the plowing and sowing, and other operations of the seed-time and summer, and of but little worth, save as means of securing an abundant harvest. He who fails to secure a pleasant home as the harvest of his life-labors is as unfortunate, or as poor a manager, as he who should labor hard and take the utmost pains in preparing his soil, sowing his seed, and cultivating his crops, and yet, in the end, fail, through misfortune or mismanagement, to secure a remunerating harvest. The latter loses the natural fruit and reward of the labors of one season; and the former fails to secure the most desirable and most heart-satisfying of all the compensations and rewards appointed by a kind Providence as

fruits of human industries, and fails, not for one season only, but for a whole life. *A Pleasant Home* is, of all things earthly, the sweetest, the most heart-satisfying, and the nearest thing to Heaven.

Among the advantages and blessings which make a pleasant home so valuable, is the *moral influence* which it exerts upon all within its hallowed sphere. It tends certainly to cultivate, develop and strengthen a taste and love for the pure and the beautiful wherever these may be found, in nature or in art, in human character, or in the graces of social intercourse. It tends to elevate and refine all within its sphere, to make vice, and crime, and low pursuits, unwelcome or disgusting, to pale or take away the glittering attractions of the tavern and similar resorts; and, in a word, to cultivate all the good qualities of the occupants, and to repress, or remove by degrees, the bad. In addition to these refining and elevating influences of a beautiful and pleasant home, JUDGE FRENCH has very vividly pictured to the mental eye some of the similar good influences which the memory of a pleasant home is adapted and likely to exert upon those who have been called to leave such a paradise, either by the stern voice of war, or by a love of enterprise conjoined with a hope of bettering their condition. His remarks on the good influences of recollections of such a home will be interesting to many at the present, and will, probably, inspire with hope, and consolation, and encouragement, some of the parents, sisters and friends of those who have left pleasant homes to save the best government in the world from the overthrow which traitors at home, and monarchs, aristocrats, and anti-republicans of all kinds abroad, would rejoice to have befall it.

And now, if the efforts made by Mr. FRENCH, or our own, to set forth attractively some of the excellences of a pleasant home shall avail with any of our readers to kindle or strengthen a longing for this supreme blessing of our life on earth, it will naturally follow that they will desire more eagerly than ever before to ascertain what they can do to secure it. One of the things that they can do—that all can do—is to beautify and adorn their dwellings, and all around them; and to aid them in this department of the many-sided and multifarious work of making a pleasant home, they will find some valuable suggestions in the article of Judge F. now under notice. And if they should wish to receive still more assistance in the work of laying out their front-yards, and the grounds surrounding their residences, in good shape and graceful form, I know of no advice that could be given to such, better than that which the Editor of this journal gave to an inquirer for assistance of this kind, in the December number of 1st year, which was this: "Send to LUTHER TUCKER & SON, Albany, N. Y., for a volume of their *Illustrated Rural Register*, in which you will find just what you want." The same may be said to all who are seeking assistance in laying out their grounds, in seeding and planting their front-yards or lawns, and in beautifying and adorning their premises generally: They will find in the two volumes referred to, (the proper title of which is *Rural Affairs*, and the price of which is \$1 per volume, post paid,) just what they want or need, and more than they

will find in any other volume of as little cost. We doubt not that those who have already adopted, or who may yet adopt the advice of our Editor as to sending for the book, will feel inclined, or at least have good occasion, when they see the new forms of beauty which their grounds have assumed or may be made to assume, to thank him in their hearts for that one little piece of information or advice. Though we have quoted the editorial reply to the inquiry made as to laying out a front-yard, &c., yet, as some may wish to refer to the inquiry as well as to have the reply, I would state that both are to be found in the *New England Farmer*, monthly, on page 573 of volume 12th, or in the number for December, 1860.

**BARNs AND MANURE.**—If Secretary FLINT's estimates on page 445 of October number, of the amount of manure which might be made more than is actually made, in the Bay State, are tolerably correct, then the farmers of that State might be richer annually by the enormous sum of \$1,125,000, if they would heed his counsel and manage their manure more carefully. This saving is worth attending to at any time, but especially at the present.

MORE ANON.

#### AGRICULTURE OF MAINE.

We have before us a fine volume of upwards of 400 pages, containing the report of the Secretary of the Maine State Board of Agriculture for the year 1860, and an Abstract of Returns from the Agricultural Societies of that State for the same year. The volume is on good paper, is neatly printed, and is illustrated with engravings of animals, insects, fruits and plants.

The report of the Secretary of the State Society, STEPHEN L. GOODALE, Esq., comprises some 250 pages of the volume, and details the doings of the Board of Agriculture for the preceding year. The first business he notices, is that of a meeting of the members of the Board assembled at the agricultural room in the Capitol at Augusta, on the 18th of January, 1860. At this meeting, a committee was appointed to present subjects for the consideration of the Board. Pending the report of this committee, members were called upon to state the condition and progress of the societies represented by them, and a most interesting and valuable discussion ensued.

Mr. ANDERSON, of Cumberland county, said that farming in his county had made very considerable advancement within the past few years. Draining had been introduced, and met with marked favor. The second year's operations had more than quadrupled those of the first. Out of 23 farms examined by a committee, 21 had undergone more or less of this kind of improvement. He had been extremely interested in hearing the farmers set forth its benefits. There had been great improvement in *stock*, and especial attention had been given to the manner of keeping it. More than ever, boards and shingles had been re-

sorted to for the saving of fodder, rather than to more expensive things.

Mr. DILL, of North Franklin, said that manifest improvement had taken place in barns and barn-cellars, and in saving manure, and that farmers take better care of their stock and are more *humane* to it than formerly! Twenty-five years ago, he said, they thought oxen girting six feet to be of good size; now, less than seven feet is considered small. This is partly owing to breed. The same improvement is seen in sheep. Flocks are in every way improved, and all this may be chiefly ascribed to the influence of agricultural societies. Farmers are more anxious for knowledge, and for reading matter. He read a letter from Abner Toothaker, of Rangely, who states his average crop of hay at 1½ tons; oats, 50 bushels; wheat, 20; barley, 35; and potatoes 200 bushels per acre.

Mr. WASSON, of Hancock, reported that the influence of the society was very marked. It had set men thinking, reading, and studying—has kindled a desire to farm scientifically, and not at hap-hazard.

Dr. TRUE, of Oxford, after speaking of a herd of 29 Devons, shown by Mr. Heald, of Sumner, said there was a marked improvement generally among farmers in his county; an air of thrift about them—they had more comforts and luxuries—were getting free from debt. Fine barns, with good cellars, had been built, a spirit of inquiry had been aroused, and a desire for books and papers prevailed.

One expression in Dr. True's remarks, that farmers have "more comforts and luxuries" than formerly, suggests enough to fill a column, if we had space to pursue this single thought. Farmers are often heard to complain that they make no more money now than they could forty years ago, although greatly aided by machinery in their business, and finding a ready market almost at their doors for any article they can produce. But they overlook the fact, which must be evident to their own senses if they will but look at it, that the farmer of to-day scarcely has any points of resemblance with the farmer of 40 years ago, in his clothing, his vehicles, his dwelling, barns, bed and board! They have all changed for the better—while his farm is more rapidly improved and yields larger net profits, his children are better educated, and himself and wife have more leisure, and are more rapidly progressing in knowledge, and all that tends to elevate the class. Convenient and economical cooking-stoves or ranges have taken the place of cold and exhaustive open fire-places; a carpeted sitting-room on the south side of the house, for the afternoon and evening, instead of the bare floor of the kitchen, facing the north pole; an easy arm-chair, or rocking-chair,

instead of a six feet long, white pine "settle," with its back reaching almost to the ceiling, to keep the children and old folks from freezing; and a cellar, light and airy, where well-filled meat-tubs preside over heaps of fine vegetables, that no frost approaches, instead of a low, damp, frosty hole, where nothing is safe! If the farmer of sixty years, will but contrast the present mode of living in the class, with that which prevailed in his boyhood, he must come to the conclusion that it is vastly easier to invest one hundred dollars now, than it was at that period.

Mr. HAMMOND, of Piscataquis, said: We regard farming as a science, and think we have seen some of its benefits developed by practice in our community to such an extent, that it has divested us measurably of prejudices against book farming and agricultural periodicals, which are now studied with much interest; and the annual reports of the Secretary of this Board are considered indispensable. And we cannot be insensible to the fact that the information thus derived in regard to agricultural improvements awakens energy in practice, new desires for more extensive knowledge, a love for the employment, operating as a moving power to the main body, approximating a more perfect system.

Mr. MOULTON, of West Oxford, said that near the foot of the White Mountains, there was much bog land suitable for cranberry raising. Ex-Governor DANA owned a large tract, from which he could make more money by raising cranberries, than he could as Minister to Bogota!

Mr. HAYDEN, of Somerset, stated that much interest was felt in horses and neat stock in his county. Three horses in his vicinity had recently been sold for \$1200.

Mr. DAVIS, of North Somerset, said: Crops had improved. Attention had been directed to preparing and applying manures. Muck, composted with lime, salt and other articles, had been applied on run-out farms with great effect, producing good crops of corn and then of hay, showing how easily exhausted farms may be brought up. The muck was hauled out and spread over the barn-yard, where it would absorb the liquids—allowed to lay a year—was occasionally plowed, and top-soil, leaves, straw and rotten wood mixed with it.

Mr. MOORE, of West Somerset, said improvement was evident in the stock and farms of his county. Wool raising is extensively carried on. The Spanish Merino is chiefly grown. The town of Anson alone sold last year between \$13,000 and \$14,000 worth. Underdraining has received some attention.

Mr. STACKPOLE, of West Penobscot, thought that farmers do not keep sheep enough. More sheep and fewer horses would be better. A

greater breadth of land was put into cultivation last year than ever before. Corn was grown to the amount of 110½ bushels per acre. Wheat produces well when sown; barley 62 bushels per acre; oats, 74, and 72 by another.

Mr. REED said the products of the soil in Lincoln county were greater than ever before. Fruit was very good. Gardens have been improved by setting out flowers, shrubs and fruit trees. Much attention is paid to making manure from sea-weed, rock-weed, muscles and mud. He thought too little attention was paid to sheep-raising.

Such are some of the things said by the members of the Board, while their committee was out preparing topics for consideration—and they give a clear view of the kind of progress which is going on among our brother farmers in the State of Maine. This progress was imputed by several speakers mainly to the influence of the State and County Societies, and by others to their agencies, together with those diffused by books, newspapers, and home discussions in farmers' clubs.

The committee, however, have returned, and are ready to report their "topics for consideration," but we have exhausted our space for the present, and must leave them for another writing.

LONG CANOE VOYAGES.—At a recent meeting of the American Ethnological Society, of New York, as we learn from the *Commercial Advertiser*:

"The recording secretary read an account by Mr. Joane, of the Micronesian mission, published in June last, of a voyage of five hundred miles and back, made by a few natives in their little canoes, without a compass, and with only two stopping-places, guided by the stars, currents, winds, &c. This writer remarked that this fact proved that the islands of the Pacific might have been peopled either by accident or by design, and accounted for known resemblances in language, &c.

It is certain that the Sandwich Islands were peopled from the Society Islands, and that voyages were made between them before the days of Captain Cook. Mr. Gulick stated at a former meeting of the society that he had seen natives who had recently performed the voyage in canoes; and they declined accepting a compass, saying that their pilot *had one in his head*.

Mr. Buckingham Smith mentioned that certain old Spanish writers spoke of some of the Americans as having the points of the compass always in mind, so that they knew their courses and bearings even at the bottom of a mine. Their languages also have words corresponding with this remarkable custom."

KEEPING APPLES.—We cannot aid our correspondent in Maine in selling his "process" for keeping apples. If we aid him at all, it must be through our advertising columns, or our own experience in the matter.

## OUR NEW TERMS.

In our last number we announced an entire change in our terms, to take effect from the 1st of January next, and at that time promised to say something more upon the subject at this time.

We are happy to say that, as far as we have heard from our subscribers, there has been almost unanimous approval of our plans. All acknowledge that the terms we have adopted are much more favorable to those who pay for their paper than the old terms; and those who do not pay, and we fear in many cases do not intend to pay, we are not anxious to count among our subscribers. We have received letters every day, since the new arrangement was announced, approving in the strongest manner of our plans, and commending the principle of the advance payment system, as the only correct one for publishers to be governed by.

Let us contrast the two systems, and see how a mutual gain is made by both subscriber and publisher. Under our old system, we were obliged to employ travelling agents to collect our bills and to obtain new subscribers, at an expense of several thousands of dollars a year. Did our subscribers who failed to send in their money, thus putting us to this expense, think that, for every two dollars paid us through an agent, we were obliged to pay that agent 25 or 50 cents for his time spent in collecting it? For our bills are small and scattered, and it takes a good deal of time and labor to collect them. And did the subscribers realize that, if we could make the custom of paying us through the mail universal, this agent's fee would be saved to us, and could as well be discounted from the price of the paper?

Under our old system we sent the *Farmer* to all who subscribed, having no guarantee that the bill would be paid, except the individual's verbal promise. In many cases, after sending the paper a year, we would be notified that the subscriber was not reliable, and the bill could not be collected. We think all our subscribers can give instances from their own knowledge, where we have sent the *Farmer* to individuals who will never or can never pay their bills. The removal of subscribers, who have given us no notice of a change of residence, or of their new abode, has been another cause of many losses. Now, these losses may be very small individually, but the aggregate in a year is quite large, and in fixing our price for the *Farmer* we were obliged to make it so high that the payment of good subscribers would not only afford us a fair profit on their own papers, but would indemnify us for the loss on non-paying subscribers. This is a piece of injustice which is inseparable from the credit system in any business.

Now we propose to make our terms strictly

cash in advance, thus using all alike, and securing every subscriber against loss by the failure of his neighbor to pay us. We offer the *Farmer* on greatly reduced terms to clubs, thus giving every man an inducement to add others to our list, and paying him, in the reduced price of his own paper, the commission which formerly went to the agent. We assume the risk on all money sent us by mail, if properly sealed and directed, thus subjecting the subscriber to a very trifling trouble and expense, instead of adding a much larger sum to the price of his paper to make up to us the cost of sending a collector for it. Does not every subscriber see the gain to him by adopting the new system? Our own gain consists in saving all the time and trouble we have spent upon the care of our agencies, in the increased ease of keeping our accounts, thus reducing our office-work, and last, but by no means least, in avoiding the constant annoyance and vexation attending the old system of giving credit.

We ask our subscribers to candidly consider the terms we offer in our Prospectus, and we hope to receive their hearty approval and co-operation, that the experiment we have inaugurated may prove a complete success. We are anxious to make such an increase in our list, that we shall be warranted in adding many improvements to the *Farmer*, which is already the most expensive paper to its publishers, in proportion to its circulation, of any in Boston, and shall use all our efforts to give our subscribers the benefit of any increase in our business. We shall do this the more cheerfully from the fact that we shall know that every individual subscriber has helped add to our prosperity, and that all are equally entitled to share its advantages.

*For the New England Farmer.*

## LEAVES OF THE FOREST.

MR. EDITOR:—To me it is a matter of profound surprise, that so little use is made of forest leaves. As a litter, to bed down cattle, horses, and other stock, they are of vast importance to the farmer. As an absorbent, to mix with and take up the liquid manure which is frequently wasted by evaporation, they are very excellent. As an article for mulching young trees of every description, for covering up grape vines, rose bushes, and all kinds of small shrubbery, nothing can be better than leaves of the forest, especially pine leaves. Besides, there are many garden vegetables, such as asparagus and rhubarb, which need an outside garment for winter.

Now is the time, before the snows of winter cover the ground, to spend a few days in raking together and collecting the fallen leaves of the forest. A good collection of such materials, whether from forest, or from shade trees in the immediate neighborhood, will ensure a great amount of comfort to horses and cattle, by giving them an easy and warm bed, and will save much

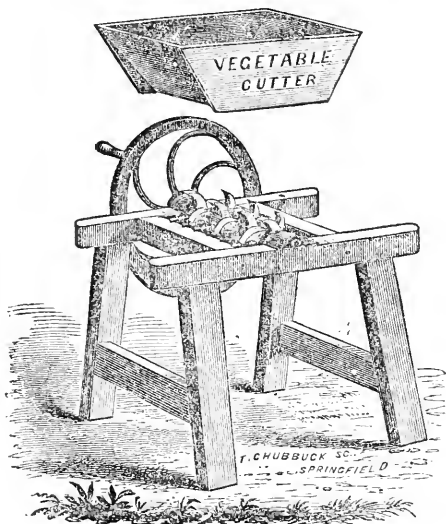
fodder, because cattle and horses will eat much less, when they are kept warm and dry.

Now is the time for farmers to gather in their last harvest, a harvest of leaves. No work done at this season of the year will make a better return than this. Those in the country who live near a forest, or whose streets are adorned with ancient shade trees, have no excuse for neglecting this business. In a single day, a farmer and his boys will be able to gather together a large pile of these fallen leaves; and if stowed away in a dry place, he will experience the good effects of them in the improved condition of his stock, compared with those which are suffered to lie down in their own filth. Besides, the fertilizing property of the leaves adds essentially to the enriching qualities of the manure heap.

JOHN GOLDSBURY.

Warwick, Nov. 11, 1861.

#### WHITTEMORE'S PATENT VEGETABLE CUTTER.



The opinion that the culture of roots for feeding stock is profitable, is not generally embraced by our farmers,—but it is gradually gaining ground. Careful and systematic cultivators are here and there disseminating their experiments and results, and thereby inducing many to enter the field of experiment for themselves.

To cultivate roots, as fodder, in the old way, by the hand and hand hoe, would settle the question of profit at once,—it could not be done. To make the practice profitable the farmer must call to his aid the genius of the mechanic, and avail himself of the labor-saving machines which he has placed before him. He must do most of the cultivation with the subsoil plow, horse hoe or cultivator and the hand wheel hoe, which he can now command.

When his crop has been secured, he must not content himself with covering his barn floor with

mangolds, beets or bagas, and cut them with a shovel, or in a box, at the rate of *five* bushels per hour, and hard work at that, but bring to his aid some machine which will enable him to do what our friends say their *Cutter* will accomplish,—cut *sixty bushels* per hour!

We have not seen the machine which they describe below, in motion, but from our knowledge of the men, and their ability to devise and make a good machine, we have no doubt they are able to make their assertion good. They say:

This machine we consider the best in the market for cutting all kinds of vegetables. It is made with a wrought shaft, with sections of knives attached, and arranged so that a rotation of knives are continually passing a bed knife, with cross knives passing between the sections of knives, cutting always near the centre or shaft, making it cut easy and fine enough for cattle or sheep,—also making a very regular cut. It will cut sixty bushels per hour.

Manufactured and sold by *Whittemore, Belcher & Co.*, Chicopee Falls, Mass., and for sale by implement dealers generally.

#### USE OF SWEET APPLES.

A sweet apple, sound and fair, has a deal of sugar or saccharine in its composition. It is, therefore, nutritious; for sweet apples, *raw*, will fat cattle, horses, pigs, sheep and poultry. *Cooked* sweet apples will “fat” children, and make grown people *fleshy*—“fat” not being a polite word as applied to grown persons. Children being more of the animal than “grown folks,” we are not so fastidious in their classification. But to the matter in question. In every good farmer’s house who has an orchard, baked sweet apples are an “institution” in their season. Everybody, from the toddling baby holding up by its father’s knee—children are decidedly a household commodity—away back to “our revered grandmother” in her rocking-chair, loves them. No sweetmeat smothered in sugar is half so good; no aroma of dissolved confectionary is half so simple as the soft, pulpy flesh of a well-baked apple, of the right kind. It is good in milk, with bread. It is good on your plate, with breakfast, dinner or supper—we don’t “take tea” at our house. It is good every way—“vehemently good”—as an enthusiastic friend of ours once said of tomatoes.—*New York World*.

**BUCKSKIN MITTENS AND GLOVES.**—These mittens when long worn become hard and good conductors of cold. Frequent wetting while at work, together with the sweat and salts issuing from the hand, destroy the oil of the leather, and it hardens as a natural consequence. To remedy this, wash your mittens in warm soapsuds, being careful not to wring or pull them—simply squeezing in the hand as a silk handkerchief, is sufficient to remove the water. Then dry carefully, and if it is wettish weather, oil them with some kind of fish or animal oil. They will keep out the water then, completely, but the cold not so well.—*Prairie Farmer*.

For the *New England Farmer*.

### WOODLAND SCENES---No. 3.

Upon one side of this tract of pine woods, where we were seated at the conclusion of my second article, there is a low, swampy piece of ground, or meadow, which extends from a ledge or rocky bluff in the woods, to the pond—a distance of about seventy rods; in breadth it is nearly one-half the above distance. As the route to the camp would be much shortened by crossing this meadow, we concluded to do so, but soon found that in this instance, it was much easier to talk of doing a thing than to do it. We had not proceeded three rods into this deceitful morass, before our courage began seriously to waver, and my companion thought best to go back, but thinking that the ground would improve a little further ahead, I persuaded him to keep on. But it was of no use; the willows, wild vines of all sorts, trailing herbs, and fowl meadow grass, six feet high, formed such a thick and tangled net-work, that to force a passage through it was next to impossible. The ground was also quite moist, and as it was concealed from our sight by the confused mass of vegetation, in which we sank to our waists at every step, the passage was not only difficult, but dangerous; for we might, without any previous warning, step into a bog-hole, and slip down, nobody knows where. While struggling and floundering in this chaos of living and decayed vegetation, the trials and hardships of men who have been on exploring expeditions—like those for instance which have crossed the Rocky Mountains and the Isthmus of Darien—were brought vividly to mind. In some of these expeditions, especially those across the Isthmus, the travellers were obliged, day after day, to cut their way with hatchets through the otherwise impenetrable forest before them; being surrounded with hostile Indians, ferocious beasts, poisonous serpents, and with starvation continually staring them in the face. How much easier it is to sit down by our own fireside, and read of these adventures, than to take an active part in them.

We finally gave up the contest, and retraced our steps to the solid ground; preferring to take a much longer and safer path, than to trust ourselves to one that was short, but treacherous. A similar decision might sometimes be applicable to more important matters.

We now proceeded towards the rocky bluff at the upper end of the meadow, but before reaching it, crossed a little stream, which, with other springs, supplies the meadow with moisture. The brook, at the place where we crossed, was entirely hidden beneath the rocks in its bed; and if we had not heard the low, gurgling sound beneath our feet, we should have been ignorant of its existence. We next came to the bluff, which is a mass of granite rocks of all shapes and sizes, heaped confusedly together upon the side of a hill composed of the same kind of rock. Here our spaniel "Don," tread a woodchuck among the stones; but the poor little "varmint" had chosen a secure retreat, for after poking with sticks in the crevices between the rocks for some time, the only reward we received was the sound of his peculiar squealing chatter. For my part, I was very glad that the little fellow was safe from our attacks, and we left him to enjoy life in his own way.

After scrambling along at the foot of this ledge for some distance, we entered a thick growth of young oak. The lower limbs of the trees had died as the wood increased in height, and they formed a very curious, and as my city friend thought, a very *serious* net-work of "sharp sticks." However, it was not long before we came to a good road—that is, good for the locality we were in. The bushes which grew in this road, had been recently mown and thrown aside, so we concluded it led to the fishing ground; and our conjecture was right, for in a few moments we came in sight of the pond.

Just before reaching the shore, we were surprised to find a cow tied to a tree, with a calf by her side. She had a yoke on her neck, and the reins with which she was tied were fastened to her horns. A little farther on was the "rigging" which the poor animal had drawn to the pond. It had two wheels, and a very long body or rack, such as some farmers use in carting hay into the barn, only much more rude in construction; the shafts were two, round, oaken poles of such enormous length, that I am yet unable to decide how the driver of this picturesque *cow-cart* ever turned about in the thick woods, when he took the "back track."

While viewing this outlandish-looking vehicle, we heard at a short distance from us, a long-drawn yawn, as if some one was very sleepy, or was just rubbing open his eyes. Perhaps our curiosity was greater than our politeness, for we instantly began to search for a path which might lead us to the spot from whence the sound proceeded. After searching a few minutes, we found a side path, so concealed by bushes and brakes—the tops of which sprang back together after we had passed—that the careless observer would not have noticed it. This path led us to a small wood-covered knoll, close by the shore of the pond; and here we found ourselves at last, in the midst of the camp. One glance around was sufficient to give us a pretty good idea of the whole concern.

Now I hope that none of my kind readers who have followed me through this somewhat lengthy description of a woodland walk, have been expecting, as had the writer, a rich treat after so much pains-taking; for, if such has been the fact, they are doomed to disappointment.

We had been imagining, and partly expecting, all along, that this party was a choice collection of a dozen or more of nice young ladies and gentlemen, who had come to this secluded dell, not only to enjoy each other's society, and to follow the profession of "Old Ike Walton," but to be enraptured with the beauties and melodies of the forest; to ride over the fair bosom of the lake, and gather the white, fragrant lilies that spangled its surface, and the brilliant *Lobelia cardinalis*—Scarlet Cardinal Flower—which then embellished the borders of the brooks, in their meandering, babbling courses to the pond; perhaps, also, to portray with pencil and paper, some of the charming scenes before them.

But the character, number, objects and tastes of the *actual* party were entirely different from the one which had existence only in our imaginations. A space among the trees had been cleared of underbrush, some rude seats and a table had been constructed of *imported* materials; dishes



and other domestic utensils were upon the table and elsewhere; articles of clothing were scattered about—some of them hanging upon the limbs of the trees. At a convenient distance from the “leafy bower,” and about half-way down the gentle slope towards the shore, a fire-place had been formed of flat rocks, in which a fire was burning; a kettle was suspended over the fire by a cross-stick between two trees. In the centre of this really cozy looking place, stood a little, old man who was staring at us as if he was trying to make up his mind whether we were friends or enemies. He was soon relieved of his suspense, however, and began to talk with a rapidity of utterance which was only equalled by the shallowness of his thoughts. By certain *unmistakable* signs, which, alas! are very common and well known, we soon discovered the secret of his volubility—he was drunk! And the beast of prey which had robbed him of his manhood, and, for the time being, of his naturally small share of intellect, stood calmly by his side, in the shape of a keg of rum!

Reader, did you ever, in passing through a beautiful flower-garden on a balmy summer's morning, and while breathing the rich fragrance, and admiring the varied beauties of its countless blossoms, suddenly pause, and feel an icy chill creep through your veins, at the sight of an enormous adder coiled up in your path, with head erect, darting tongue, and Satanic malice in his eye? If such has been your experience, then you can understand something of my feelings as I met the demon, *Rum*, in this sanctuary of nature.

“Tell me, ye winged winds that round my pathway soar,  
Do ye not know some spot, where sorrow comes no more?”

where man cannot bring his evil passions and habits, which are the real source of all sorrow and misery. The search of countless mortals for many ages has not discovered it, and nature with all her voices, answers, “No!” But there is a place in the wide universe of God where the poisonous serpent does not lurk, and where perverted appetites and hideous passions are unknown.

The other members of the party—one of which was the old man's daughter—had not yet returned from fishing, and as we had no desire to cultivate their acquaintance, our stay in this vicinity was of short duration.

Before leaving the camp, we learned, from the man's broken conversation, that on the Fourth of July—a fortnight previous—the same party had come to this place to *celebrate*, after their own fashion, the anniversary of our national Independence. By this fact, we inferred that they were yet loyal in their sentiments, which was something to their credit. The old man seemed very much astonished that we had not taken any game, when the woods were so full of it. We did not inform him that it was not our object to destroy innocent lives, but to enjoy the charms of the wild-wood, for we knew he would neither understand or appreciate our motives in coming hither.

Leaving the slaves of King Alcohol in the undisturbed enjoyment of their short-lived, corroding pleasures, we commenced our return homeward, with feelings of sadness that so many millions of our fellow-creatures are bound down to a level lower than that of the brutes, with fetters stronger than iron, and from which they are destined never to escape.

We followed for about three-fourths of a mile, the road which had been so carefully cleared of bushes by the fishing (perhaps I should say drinking) party, and this was not more than half the length of the road from which they had removed the hindrances to a safe and easy passage for their *horse* and his *cortege*. If all who use intoxicating liquors would take as much pains to conceal their drunken sprints as did these poor people, our eyes would not so frequently behold the human form reeling and plunging about, like a ship without a rudder amid the waves of the sea.

On our way home, we passed through a portion of the woods, where stood, some twelve or fifteen years ago, a few acres of the primeval forest. I can well remember with what astonishment, and almost awe, I have gazed upon the lofty and venerable trees. Some of the black and yellow birches—which now have scarcely time, before they are felled, to attain the size of hop-poles—were large enough for board logs, and tall as the mast of a ship!

Two young men of my acquaintance once had an amusing adventure in this ancient forest. They were out one evening after “coons,” and having, as they thought, “ran one up a tree,” one of them, gun in hand, climbed up to scrape an acquaintance with his lordship. Some of the limbs of the tree—which was oak—were as large as whole trees in our present forests, and on one of these, our hero soon thought he saw the coon. He could even see—as he informed his eager listener below—the hairs bristle up on the animal's back, between him and the moon! He immediately opened his battery of powder and shot upon poor cooney, and listened to hear him fall; but nothing moved—not even a hair! Again and again the old woods rang with the sound of his rifle, but the coon moved not, nor even winced under “the galling fire of the enemy.” At last our friend came to the conclusion that the animal was dead, but had become lodged on the limb. As he did not dare, at night, to venture out upon the naked limb to the place where the coon was lodged, he concluded to descend from the tree, go home, and the next morning come back for his game. Daylight revealed to our astonished hunters the mortifying fact, that the coon was *nothing but a great black wart!* Since this adventure, the writer has assisted in capturing several coons, but never was so completely *sold* as the heroes of our story.

When this wood was demolished, a steam saw-mill was erected on the ground, to convert the pine and oak logs into lumber. Since the removal of the parent stock, the young wood has grown with remarkable rapidity—a circumstance which is very common in this part of New England.

Before reaching home, we passed through a beautiful archway—formed by the overhanging branches of the red and white maples, which here grow on both sides of the road. Where the arch was most perfect, it was nearly ten rods in length; and as the branches were thickly interlaced at the top and sides, the twilight was quite deep, while passing through it. Nothing was wanting to complete the delusion, that we were walking through some dim cathedral aisle, but the thrilling harmonies of the lofty organ. We had music, however, of another kind; the wood thrushes filled

the air with the sweet melody of their inimitable pipings.

"Singer of priceless melody!  
Unquered ch. rister of air,  
Who, from the lithe top of a tree,  
Poorest at will thy music rare,

As if a sudden brook laughed down the hill side there.

The purple blossomed fields of grass  
Wav: I sea-like to the idle wind;  
Thick daisies, that the stars surpass,  
Being as fair and far more kind;

All sweet, uncultured things thy wild notes bring to mind."

Home and family seemed all the more lovely and precious after our woodland ramble; and in conclusion, I would advise every one who desires to increase his love of nature, of home and friends, to go forth into the trackless forest, and there strive to receive such deep impressions of the wisdom, love and power of the Supreme Being, as can be received nowhere else, and which can never be effaced from the heart.

South Groton, Oct., 1861. S. L. WHITE.

For the New England Farmer.

#### A NEW CART BODY.

MR. BROWN:—I asked a mechanic why he made horse cart bodies so narrow—why he did not bring out the sides quite to the wheel-hubs? Well, sir, what do you think was his answer? It was, that "it is the *fashion*."

A few years ago I was using one of these fashionable cart bodies. The longer I used it the more dissatisfied I became. I saw no reason why all of the space between the wheels should not be occupied by the cart body. It was plain that a load of dirt would not require to be piled so high if the body were wider. I wanted a cart body, too, that would carry half a cord of cut wood with side boards; and a good number of barrels of potatoes or apples. I accordingly had a body made which nearly touched the hubs, with lower sides than the narrow one, and considerably longer. My fashionable body was a short one, and when "tipped," stood erect. This made it hard to get down again.

I found my new cart body a great convenience. I wouldn't be without it one year for its cost. Let me tell you why I find it better than the old one.

As I have said, the sides are lower, and it is filled easier with *gravel*. I have two sets of side boards and can put ~~on~~ a big load of light manure, shavings from the pail factory, or four to six feet of dry cut wood, of which I cart a good deal from a circular saw driven by water-power. Then I have made two ladders and cross pieces, and raves outside the wheels, which are quickly adjusted, and supply one more cart to get hay on, of which one is not likely to have too many in the busy season.

The cart body is fastened forward by the handiest "sword" you ever saw. When I go to load a lot of potatoes or apples, I tilt the cart so that the first lift is reduced about one-half. The body will hold nine barrels. WM. D. BROWN.

Concord, Sept. 26, 1861.

A FINE PAIR OF CATTLE.—Some two years since we spoke of a pair of cattle owned by Mr. D. Z. STEELE, of Sharon, Vt. They were then five years old, and weighed sixty hundred pounds.

We now learn that Mr. Steele still retains these oxen, and that they now weigh *seventy-five hundred pounds*, and girt ten feet each! They have been kept up all summer, but since the first of July have had only about three barrels of corn and cob meal. As the weather grows cooler he will give them more meal. At this rate, Vermont will be hard to beat in oxen as well as horses.

#### COTTON FOR A COLD CLIMATE.

A new rival to the cotton fields of the South is receiving attention at the hands of the press. It is a new kind of cotton plant or tree which thrives in a cool climate. Mr. R. C. Kendall, of Maryland, says that he discovered it in the Andes, near the fortieth parallel of latitude, and that the ground around the tree was then covered with snow. It is perennial, and lives many years. It may be propagated either from seed or cuttings. About the third year it begins to yield a crop of bolls without seeds, which are not produced in much perfection until the seventh year. The tree grows to about the size of our peach trees, and the first one observed by Mr. K., about 18 feet in height, bore a crop which he estimated at nearly one hundred pounds. Mr. K. is confident that this tree can be cultivated wherever Indian corn can. In its general qualities the fibre of this plant has been pronounced by cotton brokers equal to the best Sea Island variety, and some bales of it have been sold in South America for 16 cents per pound. The yield is great. With favorable soil and situation, 2000 pounds can be raised per acre, while Mr. K. claims that half that amount can be depended upon on an average. Five hundred pounds per acre is held to be a good yield at the South.

REMARKS.—We find the above paragraph in the *Boston Journal* of the 5th inst. About two months since, we had some correspondence with Mr. Kendall in regard to the plant alluded to, the *Gossypium Arborium*, and had hoped that, before this time, he would have given us an article or series of articles, in relation to the plant, its habits of growth, hardiness, method of cultivation, &c. Whether the product of the tree should prove valuable in a commercial point of view or not, under our New England culture, we believe that any information in regard to it which Mr. Kendall might see fit to communicate, would be valuable as an addition to our botanical knowledge, and worth in that sense, if in no other, the trouble of imparting it, if nothing more.

In his letter to us, Mr. Kendall says that a company was about being formed in the more northern slave States for the purpose of encouraging the growth of this staple, but that the plan was abandoned by him on the commencement of the secession movement, as he could not "cast his lot in 'Dixie.'" He goes on to say—

"Now as the *Gossypium Arborium* will flourish well in a climate that would freeze an apple tree

to death, it is obvious that it will grow in any of the free States, and as it matures its crop inside of three months, it would come in between spring and autumn frosts, even in Maine.

As the Peruvian tree produces a staple equal in length and fineness to any Sea Island, and yields double the amount per acre, and as the supply from the South is likely, in any event, to be uncertain hereafter, it seems to me, that some inquiry into the character and capacity of the tree were worth the while to northern manufacturers."

We think so, too, and we hope that Mr. Kendall will give us the information he possesses, and which he has kindly volunteered to communicate, if there should be interest enough manifested in the subject.

#### MAIZE AND TOBACCO.

The Indian Corn looked over the fence,  
And what do you think he spied?  
A field of tobacco, just ready to bloom,  
And stretching in lordly pride.

To the broad-leaved neighbor at once he called,  
In accents loud and clear,  
"I thought you belonged to a summer clime;  
Pray, what are you doing here?"

So then, with a haughty air, replied  
That plant of power and pelf,  
"You are pleased to ask of my business, Sir—  
What do you do, yourself?"

"I feed the muscles, and blood, and bone,  
That make our farmers strong,  
And furnish bread for the little ones  
That round their table throng."

"I move in a somewhat loftier sphere,"  
The foreign guest rejoined,  
"As the chosen friend and companion dear  
Of men of wealth and mind.

"I'm the chief delight of the gay young spark;  
O'er the wise my sway I hold;  
I lurk in the book-worm student's cell—  
In the dowager's box of gold.

"Thousands of hands at my bidding work;  
Millions of corn I raise"—  
He ceased to speak, and in angry mood  
Responded the tasseled Maize;

"You're in secret league with dyspeptic ills—  
A merciless traitor band;  
With clouds of smoke you pollute the air,  
With floods of slime, the land.

"You tax the needy laborer sore;  
You quicken the drunkard's thirst;  
You exhaust the soil—and I wish you'd go  
To the place whence you came at first."

*Anonymous.*

**AUTUMNAL TINTS.**—No one can maintain, after this year's experience, that frost has any special agency in the autumn coloration of leaves. Scientific men have long understood the matter, and have explained the ripening of the leaf as a simple process of vegetable growth, though the coloration of the leaves at maturity can no more be accounted for than the red of the rose, the blue of the violet, or the orange of the lily. The color which leaves assume in the fall is due to the same causes. But the popular idea that the leaves are changed by the frost is so firmly established in

the minds of unscientific and unobservant people, that it is difficult to dispel. This year the foliage has assumed the most gorgeous coloring without a sign of frost, and, indeed, seems to be more brilliant on account of its non-appearance. This is perfectly natural, as the leaves have been able to gradually and freely assume the colors which belong to their ripeness, unobstructed by sudden cold.—*Post.*

*For the New England Farmer.*

#### THE SEASON AND THE CROPS IN CHESHIRE COUNTY, N. H.

The weather this fall has been remarkably fine, hardly frost enough up to this date, Oct. 19, to kill tender vegetation. We have had light frosts, but not severe enough to kill the leaves on fruit trees, which have matured and ripened, thereby enabling them so to ripen their fruit buds as to withstand the severe frosts of winter. On the morning of the first of last October we experienced a very severe frost, by which apples were frozen like rocks on the trees—the leaves prematurely cut off—the sap not only vitiated and interrupted in its natural course of circulation by the sudden administration of atmospheric influences, but so freezing it as to destroy the affinity of particles in its constitutional formation, sending the poisoned fluid into root and branch, causing the death of many a valuable tree, and the fruit buds of others set for the present season. To that severe frost I attribute the initiative causes of the loss of our fruit crop the present season.

I do not remember a season in which fruit trees presented such a deathlike appearance as the last. Almost every wound or incision made upon the trees last fall, or the past spring, has bled freely, of a thin watery substance, in many instances turning the bark black for many feet, causing the ultimate death of the tree. We are also losing hundreds of our finest trees every year from the bark splitting upon the body, usually near where some limb branches off. I cannot trace the cause of this beyond the fact of the immature condition of the sap, as operated upon by the frosts of the winter and spring months. I believe nurserymen and others, budding fruit trees for orchard or garden purposes, should cut bark the second year from the bud, one-third of its growth, forcing it to throw out shoots near the ground, and so head back in after years as to assist the tree in protecting itself from the scorching suns of summer and deadly frosts of winter.

The forest trees have ripened their crop of leaves without frost, and show that sublimity in decay—that gorgeous variety of colors and hues which we are rarely permitted to witness.

With the exception of fruit, our crops have been above the average. The hay crop was large and secured in fine condition. Wheat below that of the last three years. Barley and oats good. Rye, but very little sown this year. Of potatoes we have an abundant crop, and of the first quality. Corn crop good, to say the least. The Davis seedling has heretofore stood high as a table potato, but for the last two seasons it has rotted worse than any other variety under general cultivation in this vicinity.

We are now having copious rains—pastures as

green as possible at this season of the year—uninjured by frost, requiring no extra feed. The beautiful weather is not the only anomaly of the season. Last Sabbath, from 11½ o'clock A. M. to 1 P. M., there was a beautiful bow about the North Pole, apparently about two degrees high, and reaching down to the horizon. Last eve, about 6½ o'clock, there was a bright rainbow in the west from the moon.

L. L. PIERCE.

*East Jaffrey, N. H., Oct. 19, 1861.*

*For the New England Farmer.*

#### REVIEW OF THE SEASON.

*April* had a mean temperature of 43.25°, being a little above the mean, and is the warmest April since 1856. The amount of rain was 5.29 inches, and of snow 7 inches. The amount of cloudiness 51 per cent. During this month, the ground was well saturated with water, which laid the foundation for a wet season and heavy land, yet the season was very eccentric, sometimes dry, and at other times drenched with an enormous quantity of rain. The first thunder storm took place on the 24th. Rain began at 2.40 P. M., and continued till night, in two successive showers. Thunder heavy, and rain tremendous. Showers from south-east.

*May* had a mean temperature of 51.70°, being 3.50° below the mean, and is the coldest May for the last nine years except 1858. The amount of rain was 4.73 inches, somewhat above the usual amount. It retarded planting operations considerably. The amount of cloudiness was 61 per cent. Snow was seen on the mountains on the morning of the 28th day. There were several frosts during the month.

*June* had a mean temperature of 64.54°, which is about the usual mean. The amount of rain was 2.38 inches, which is below the mean, but owing to the rains in May the ground was not excessively dry. The amount of cloudiness was 51 per cent. There was a light frost on the morning of the 5th day, which was the last frost of spring.

*July* had a mean temperature of 68.25°, which is a trifle below the mean. The amount of rain was 9.60 inches, which was enormous for one month. The greatest rains were on the 2d and 20th days, which were respectively 2.76 and 2.41 inches, which constituted more than half the rain during the month. Very little rain fell after the 20th. The amount of cloudiness was 54 per cent. On the eighth day the mercury stood at 93° between 12 and 1 P. M. This was the hottest day of the season. Between the 8th and 21st days we had only three days without rain, consequently there was but little haying done.

*August* had a mean temperature of 65.89°, which is a little colder than the mean. The amount of rain was 1.88 inches—a small amount as compared with July. It fell in eleven days. The season for hay-making was tolerable but not first-rate. The amount of cloudiness was 47 per cent.

*September* had a mean temperature of 58.35°, which is about the mean. The amount of rain was 2.95 inches, being less than the mean. The ground was rather dry for vegetation. The amount of cloudiness was 53 per cent. The amount of rain from the 1st of April to the last of September was 26.83 inches, of which more than one-third fell in the first twenty days of July.

The amount in June, August and September, was below the mean, while in April, May and July, it was above. Taking the season through, we have had more than the usual quantity of rain, although the ground through August and September was rather dry, but not dry enough to effect vegetation much. Time free from frost ninety-six days, from June 5th to September 10th; but there was no frost to injure vegetation through the month of September, nor up to the present time in October. Forest leaves have mostly fallen by the natural ripening process, without the aid of frost.

The crops have been good, with few exceptions. Grass was first-rate. Oats first-rate. Wheat variable, but probably an average crop. It is thought to be considerably injured by the aphid, or plant louse. The aphid, as seen on wheat, is a small insect about one-half of an inch long, with six legs, two antennæ, two horns near the extremity of the body, which, Cuvier says, "Are tubes from which exude small drops of saccharine fluid, termed honey-dew, of which ants are very fond." They stand always, when undisturbed, with their heads downward, with the proboscis at or near the stem of the kernel. The antennæ lies backward over the body when undisturbed, but a little disturbance brings them forward. The color is yellow or orange. In this it differs from the cotton louse. In other respects the two insects appear to be similar. Whether the lady bird (*coccinelle*) is a destroyer of these insects, as it has been supposed by some, is yet to be determined. They are often found upon wheat as well as in other situations. The aphid infested many fields of oats, probably doing some damage to late oats. Corn is a scanty crop, probably further below the average than almost any other crop; yet there are some good fields. Potatoes are rather below an average crop, although the prices indicate plenty. The rot has done some damage, but not to a great extent. The apple crop is not large, yet there is enough for home consumption. Grapes and plums are an entire failure.

D. BUCKLAND.

*Brandon, Vt., Oct. 20, 1861.*

THE POCAHONTAS PEAR.—Mr. B. N. ADAMS, of Quincy, brought us some beautiful specimens of this pear, from his father's garden, Mr. JOSIAH ADAMS, of the same town. To our taste, it is one of the finest pears we have ever met—not so luscious as the Seckel or Winter Nelis, in their prime, but it has a rich flavor, is juicy, and the flesh is very fine and tender. The tree is rather a slow grower, but is very hardy, and bears annually. The fruit is of medium size, bell shaped, and is russeted about the calyx, and covered nearly over its whole surface with fine russet dots. The original tree was found in the woods of Quincy by a Mr. BURRILL, who took it home with the intention of grafting it. He allowed it to stand, however, until it fruited, when, finding its own fruit of rare excellence, he cultivated it with care, and thus has added—in our judgment—one of the finest pears to our list of good ones. Mr. ADAMS will please accept thanks for calling our attention to it.

For the New England Farmer.

### DISINFECTANT IN CASES OF TYPHOID FEVER.

MESSRS. EDITORS:—Typhus or typhoid fever, as you may perhaps be aware, is quite prevalent at this time in various portions of the country, and doubtless will continue so to be, until a severe cold and frosty weather shall set in. As a disinfectant in such cases, "Chloride of Lime" is very frequently employed, but never with half the benefit arising from the use of common lime slaked in generous quantity in the several apartments, the windows and doors being temporarily closed, while the slaking process is progressing. I would, however, offer you the following form, for producing a most reliable disinfecting agent, as recently discovered by me in an English work printed some years ago, and which comes accredited under most assured testimonials. Should you think it of any use, freely is it offered to your valued columns.

EDWARD BRINLEY.

Oak Hill, Pepperell, Mass.

### PREVENTIVE OF INFECTION FROM TYPHUS OR TYPHOID FEVER.

Dr. H. C. Smith, of the "London Medical College," recently received £500 or \$2000 from Parliament for the following most invaluable recipe.

"Take six drachms of powdered nitre (salt-petre) and six drachms of sulphuric acid (oil of vitriol,) and mix them in a bowl or tea-cup. By adding about one drachm of the vitriolic acid at a time, a most copious discharge of "Nitrous acid gas" will be evolved. The cup or vessel is to be placed, during the preparation on a hot iron or brick, with the room closed, and the mixture stirred with a tobacco-pipe. The quantity of gas may be regulated by lessening or increasing the quantity of the ingredients. The above is for a moderate-sized room. Avoid as much as possible breathing the gas when it first rises from the vessel. No injury to the lungs will happen when the air is fully impregnated with the gas, which is called "Nitrous acid gas," and it cannot be too widely known that it possesses the wonderful property of preventing the spread of fever."

### CURIOUS INSTINCT OF THE HOG.

It is common for farmers who reside in the thinly settled tracts of the United States, to suffer their hogs to run at large. These animals feed upon acorns, which are very abundant in our extensive forests, and in this situation they often become wild and ferocious. A gentleman, while travelling some years ago, through the wilds of Vermont, perceived at a little distance before him a herd of swine, and his attention was arrested by the agitation they exhibited. He quickly perceived a number of young pigs in the centre of the herd, and that the hogs were arranged about them in a conical form, having their heads all turned outwards. At the apex of this singular cone a huge boar had placed himself, who, from his size, seemed to be the master of the herd. The traveller now observed that a famished wolf was attempting, by various manœuvres, to seize on the pigs in the middle; but, wherever he made an attack, the huge boar at the apex of the cone presented himself—the hogs dexterously arrang-

ing themselves on each side of him, so as to preserve the position of defence just mentioned. The attention of the traveller was for a moment withdrawn, and upon turning to view the combatants, he was surprised to find the herd of swine dispersed, and the wolf no longer to be seen. On riding up to the spot, the wolf was discovered dead on the ground, a rent being made in his side more than a foot in length—the boar, no doubt, having seized a favorable opportunity, and with a sudden plunge dispatched his adversary with his formidable tusks. It is a little remarkable that the ancient Romans, among the various methods they devised for drawing up their armies in battle, had one exactly resembling the posture assumed by the swine above mentioned. The mode of attack was called *Cuneus*, or *Caput porcinum*.—*Silliman's Journal*.

### PRINCE EDWARD ISLAND.

This island is one of the British colonies of North America, in the Gulf of St. Lawrence, mostly between latitude 46° and 47° north, and longitude 62° and 64° 30' west, separated south and west from Nova Scotia and New Brunswick by Northumberland Strait. Its area is 2,134 square miles.

We clip the following interesting extracts from a series of letters published in the *Morning Journal*—an agricultural paper, printed at Halifax, Nova Scotia.

"Few can conceive the extent, beauty and fertility of Prince Edward Island, until they travel over its verdant fields, or sail upon its nourishing rivers. Few are aware that cheap, comfortable homes can be reared, by a short season of industry; which in other countries, would take years of toil.

Although a goodly portion of the Island is owned by non-residents, who are represented by their agents, land is by no means dear. Settlers have and still can obtain grants of arable land at the low rental of one shilling per acre. The soil is of reddish clay, having a rich layer of blackish mould. In some places the soil is very sandy, and not considered productive. There being no surface stones, of any kind, or size, upon the Island, the land is easily cleared, and tilled; the horse and plow perform the most laborious part of the labor.

A new settler, having obtained a grant of land, fires the woods, clears a space for building a log-cabin, then commences farming, at first of a rude description. While he is clearing and stumping a portion for grain, he plants potatoes amongst the debris. In a short time he transforms the scenery around his domicile! In many instances, we passed by luxuriant farms, which we were told, two or three years ago, were impenetrable forests.

The scenery of the Island, is rather tame, presenting none of the bold, rugged scenery of Nova Scotia, yet the eye never tires in gazing upon the changing beauties of hill and dale. If the reader delights in rural loveliness, let him go to the Island. Let him ride through its green forests, and ramble over its mounds, and its plains, inter-

sected with running streams. Let him pass through its waving fields, saunter along its sandy beaches, or sail up and down its romantic rivers, and he will agree with me, that it is a charming Island. If beautiful at this season of the year, (July,) how much more beautiful, in the harvest month, when the fields are covered with men, women and children, gathering the golden harvest. And likewise in autumn, when the forests are brilliant with autumnal splendor?

The farmers of the Island generally prepare their land for planting early in April and May, sowing wheat and oats about the middle of the latter month, and potatoes towards the close. Turnips are sown in July. The average crop of oats, to an acre, is said to be about 40 bushels, barley and wheat about 50 bushels, potatoes about 180 bushels. On some farms this general average is excelled. Crops are sown in rotation, oats are planted first, then potatoes, after which the land is allowed to run into pasture for a season; then wheat is sown. Some of the farmers grow wheat, Timothy, and clover together. Flax and hemp are cultivated in small quantities for family use.

The staple exports, are oats, barley, wheat, potatoes, oatmeal, pork, butter and eggs. Incredible quantities of the latter are sent to the "States." They are bought at 5 to 8 cents per dozen here. During the summer they are carefully packed in cool places, and shipped to Boston in the fall, where they bring 20 to 25 cents per dozen. Some speculators have lately exported large quantities of grain to the mother country, which has found a ready and profitable market. Great care has been recently taken by a few parties in putting up pork for the Nova Scotia market, which is beginning to be preferred to the American. As the Island affords quantities of suitable food for swine, no doubt this trade will form a valuable item in the exports of the Island. The Island sends to Nova Scotia alone something like 89,000 bushels vegetables and 133,000 bushels oats and barley.

During the year 1860 there were raised on the Island 346,125 bushels of wheat; 223,195 bushels of barley; 2,218,578 bushels of oats; 50,127 bushels of buckwheat; 2,972,335 bushels potatoes; 348,781 bushels turnips; 31,088 tons of hay; 109,233 pounds of cheese; 711,485 pounds of butter; 19,307 pounds of clover seed. There are owned in the Island 18,765 horses; 60,012 neat cattle; 107,245 sheep; 71,535 hogs.

Whilst hundreds of tourists have sailed up and down the mighty St. Lawrence—hunted or fished upon the rock-bound coast of Newfoundland—traversed the magnificent timber forests of New Brunswick—rambled over the picturesque hills and valleys of Nova Scotia, and given to the world a pictorial description of their peregrinations, Prince Edward Island has been passed by, as unworthy of a visit, although affording natural attractions, unsurpassed in any other North American colony. Many persons, for want of an authentic history of the Island, form very erroneous ideas regarding it. Some think it a small potato or oat country, situated not far from Nova

Scotia; others that it is an Island owned by a few individuals, and settled by their tenants. Whereas it comprises an area of 1,365,000 acres, having an industrious population of 80,714 souls, classed as follows: 45,306 Protestants and 35,408 Catholics. It is divided into 67 electoral districts, or townships, each containing about 20,000 acres. The people have universal suffrage, and are represented in the Lower House of Parliament, by 30 members, and in the Upper Chamber by 16 members. The Home Government pays the Governor's salary, which is £1500 sterling.

The Island is provided with good roads, which are easy and pleasant to travel upon. Owing to the configuration of the country, they are generally straight and level. The soil being soft and free from stones, it does not cost much to make, or keep them in order. The government grant for the road and bridge service, is about £5000 sterling annually. We passed numbers of men along the roads, performing their statute labor, which did not seem laborious. The horse and plow perform, as usual, the heaviest part of the labor. Although there are no stones upon the Island, yet seams, or veins as of red sand stone, are to be found a few feet below the surface, and along the shores. Plenty of clay abounds, fit for manufacturing into bricks.

No part of the Island is thickly settled, with the exception of Charlottetown and Georgetown. It being literally an agricultural country, the homes of the inhabitants are much scattered. You cannot travel eight miles in the interior, without meeting a house, seeing the ocean or a flowing river. Still travelling alone is very wearisome to a stranger. We frequently visited some of the farmers' houses, delighting the honest tillers of the soil with our admiration of the condition of their crops, and live stock.

The people are very kind and hospitable; no matter what hour you enter their houses, you are sure to be made welcome. The majority of the farmers are very comfortable, possessing valuable farms and quantities of live stock.

Great attention is given, by government, to "Education." There are 300 public schools scattered over the Island. The people are annually taxed for the support of these schools, the Legislature grants £300 extra from the general revenue. Landholders pay a half-penny per acre for school tax.

To obliterate the political feuds to settle the land question, and properly develop the agricultural wealth of Prince Edward Island, as well as to develop the vast and magnificent resources of her sister Provinces, there must be a Federal union of all the lower Colonies! Nova Scotia with her rich minerals, New Brunswick with her valuable timber, Newfoundland with her inexhaustible fishery, Prince Edward Island with her unrivalled fertility, could form—independent of Canada—a powerful union, possessing within themselves all the elements that make a nation prosperous.

ANNUAL REGISTER OF RURAL AFFAIRS.—We have before us the eighth number of the *Annual*

*Register of Rural Affairs*, a neatly-printed volume of 232 pages, made up mainly from the rich pages of the *Cultivator* and *Country Gentleman*, published by LUTHER TUCKER & SON, Albany, N. Y. It is edited by J. J. THOMAS, Esq., author of the "Fruit Culturist" and "Farm Implements." The work is crowded with interesting and useful facts, and very many of its subjects are illustrated by appropriate engravings. It also contains an almanac for the year 1862. It is a convenient and useful book for the farmer. Price 25 cents. For sale by A. Williams & Co., 100 Washington St., Boston, the publishers for New England.

*For the New England Farmer.*

#### DOGS.

MR. EDITOR:—I have perused with injured feelings the sarcastic articles on dogs by some of your correspondents. Nuisances they may be, in many instances, but I believe we might trace the cause of their being a nuisance to their owners. The dog is a tractable creature, and when properly trained, a noble and useful one. Suppose they do not augment our pecuniary resources in so great a measure; we were not constituted to devote our entire energies to accumulation and hoarding. An All-Wise Being implanted in our natures the power of enjoyment and affection, and callous, indeed, is that individual's heart who spurns all God's creatures that do not directly add to his purse or property. And who that owns a kind and faithful dog does not feel a strong fondness for him; a feeling that he is one of the household, and should be protected and cared for, even as he in return is ever watchful for his master's interest? Then what an amount of pleasure this animal affords the children. How their little hearts are entwined to the faithful dog, who is ever at their side, and constantly ready to engage in their sports and sympathize in every childish action. I speak from experience, as many hours of a sweet sunny childhood were spent in association with a dog whose friendship never failed. Even in later years I might speak of an instance where sympathy was yielded in an hour of trial from this humble and censured creature, which no human hand afforded. For my part I say train and cultivate the dog, and he will bless you, and will certainly recognize the hand of kindness.

*Enfield Centre, Oct., 1861.*

POLLIE.

OLD PAMPHLETS.—Not long ago the librarian of Harvard College saw a man stuffing some bags with old pamphlets and papers in a Boston auction-room, when, to his surprise and delight, he espied among them a pamphlet for which he had been looking for eleven years, in order to complete the volume of a valuable periodical. The purchaser of the old wares relinquished it willingly, and the librarian bore it away in triumph. The same librarian says that he has known a journey to be made from New York to Cambridge in a storm, just to consult an old funeral sermon, the only copy in the country. It was wanted in a law case in which a half million dollars was involved.

#### EXTRACTS AND REPLIES.

##### MATERIAL FOR COVERING STACKS OF GRAIN.

In this place we are sometimes obliged to pile quantities of mowed oats outside of the barn so as to have them handy to get to the machine to thrash.

I covered mine this year with boards, but they leaked badly, and then it is not convenient to have two or three thousand feet of boards of the right length at hand every year to cover grain—to say nothing of the labor of getting them on and off from a pile.

Now, is there any cheaper, easier or better way to cover them?

If old sails will answer, or tent cloth, or anything else will do, please say what the probable expense will be a square. VERMONT.

*Barre, Oct. 7, 1861.*

REMARKS.—Plenty of old sail-cloth may be purchased at moderate cost in this city, which would be altogether cheaper, more convenient and useful for covering grain than boards. We do not know what the expense would be, or who has it, but do not doubt that there is enough of it on hand.

##### HORSE'S THROAT—WHEAT.

1. I have a very good family horse, that has some difficulty in his throat, which occasionally swells up and causes him to breathe very hard. Can you inform me what will relieve him?

2. I have an acre and a half of land that I sowed last spring with oats, but the worms destroyed about half of them, so I cut the straw and plowed in the stubble and worms together. The oats are now just heading out the second crop. I think of trying some spring wheat, if I can get some good seed. How do you think it would do to put on to it about one hundred bushels of leached ashes, and sow it with wheat? Whom can I get to send me the seed? How much will it take, and what will be the cost of it?

THOMAS HOBSON.

*New London, Ct., Oct., 1861.*

REMARKS.—We know of no disease common to the horse with such symptoms as you describe, and it would, therefore, be idle for us to recommend a remedy.

We have no doubt that the operation you suggest on the oat land would be a good one. You can get the wheat at the seed stores, or, perhaps, of some of your neighbors. Sow five or six pecks per acre. We cannot tell what the price will be.

##### A RARE BIRD.

The bird seen by your correspondent on the Merrimac river has long been known to Arctic navigators and ornithologists. Its home is in the frozen seat of the North, never visiting the land except for breeding and laying its solitary egg in burrows dug in the earth with its bill and claws, and is known under many different names. Crantz calls it the Ice Bird—Scoresby, the little Auk, and says the Arctic Seas are literally covered with them. He supposed at one time nearly half

a million passed his ship in the course of twelve hours. It is also called the Sea-Dove, Dovekie, and little Guillemon. This beautiful little seabird is but seldom seen on our coast. I have seen but two taken in Danvers after violent north-east storms, during a period of twenty-five years. Mr. Audubon, in his synopsis of our birds, gives us the scientific name of *Mergulus Alle*, and says it is rare.

Danvers, Oct. 19, 1861.

S. P. F.

#### CATERPILLARS IN THE GARDEN.

The specimens sent by Mr. Stetson, are the caterpillars of the painted Mamestra (*Mamestra picta*), a night-flying moth belonging to the same division as that of the army worm, but of a different genus. It is very common in July and August, flying into lighted rooms in the evening. The caterpillar, living as it does upon the leaves of low plants, may readily be picked off and then crushed. They very seldom occur in sufficient numbers to do serious injury to any crops but beets and cabbages, the leaves of which seem to be its favorite food.

F. G. SANBORN.

State House, Boston, Oct., 1861.

#### A COW THROWING UP HER FOOD.

Can you tell what will prevent a cow from vomiting food from her stomach? I have one that will eat awhile and then throw it off. She continues to do so through the day, but not through the night.

A SUBSCRIBER.

Enfield, Oct. 2, 1861.

REMARKS.—We cannot, but hope some other person will be able to. It is the first of the kind that has come to our knowledge.

#### DWARF BROOM CORN.

I have not noticed anything in the *Farmer* in regard to the Dwarf Broom corn. I am anxious to know how it has succeeded this season, and whether it is as good or better than the old sort. I wish to obtain two or three bushels of dwarf broom seed at a reasonable rate.

A. N. JENKS, JR.

Marlboro', Vt., Oct., 1861.

#### CROPS.

The crops in this county, Carroll, N. H., are fair this season. Corn will yield a more than average crop. Potatoes are medium in quantity and superior in quality. Grain is rather light and fruit scarce. There has been a good harvest of hay.

P.

#### THE CARROLL COUNTY FAIR.

was held at Ossipee, Oct. 2d and 3d. There was a good exhibition of stock, produce and fancy articles. The address before the Society was delivered by Hon. JOEL EASTMAN, of Conway. The attendance was large. The fair gave universal satisfaction.

P.

CAUTIOUS MEN.—Some use words as riflemen do bullets. They say little. The few words used go right to the mark. They let you talk, and guide with their eye and face, on and on, till what you say can be answered in a word or two,

and then they launch out a sentence and pierce the matter to the quick, and are done. You never know where you stand with them. Your conversation falls into their minds as rivers into deep chasms, and are lost from sight by its depth and darkness. They will sometimes surprise you with words, that go right to the mark like a gun shot, and then they are silent again as if they were reloading.

For the New England Farmer.

#### A ROOT-CUTTER---THE SEASON---CROPS---WHEAT.

In looking over some back numbers of the monthly *Farmer* I noticed in the June number p. 254, (which must have come when I was too ill to look it over) an inquiry in regard to the price and place of obtaining a machine for cleaning and cutting roots referred to by a correspondent in the March number. If the inquiry has not yet been answered, I will say that the maker is Daniel Odiorne of this town, and the price is \$10,00.

Whenever I review numbers of the *Farmer*, I often think what an amount of very valuable matter they contain for preservation as a standard work, not for one generation only, nor for farmers simply, but for all classes, sexes and conditions till the Re-United States shall have seen eye to eye and labored hand to hand in patriotic progress, while children's children bless their efforts.

Our first freeze to do any hurt occurred last night—mercury 18 degrees above zero this morning—the coldest for the season for many years. Our wheat crop has not been so good as last year—averages about 15 bushels per acre I think, of good quality; corn better than an average—potatoes good—hay abundant—other crops, except fruit, a fair product. Some fields of wheat had a large amount of spurred wheat—for which we cannot satisfactorily account; what is your theory as to the cause of spurred grain?

I think, perhaps, on second thought, this average is too small, as I have not heard of more than half a dozen who have threshed, and 20 bushels would be a nearer average; one man had over 200 bushels of very superior wheat from ten acres. Last year the average would be nearer 30 bushels per acre; one man had, as I have been told, forty-three bushels per acre from four acres! Our farmers have of late been taking more pains to sow only pure seed and only the largest kinds that, with very perceptible advantage.

R. N.

Randolph, Vt., Oct., 1861.

#### BEAN MEAL FOR PIGS.

In England, on the continent, the practice prevails quite extensively, of feeding pigs and young swine on bean-meal. The beans are ground the same as corn or wheat with us. The *Mark Lane Express* says on this subject:

"A subscriber wishes us to inform him what is the best food for fattening pigs? I have myself tried nearly every description of food, and have never found anything to produce so much weight, or so fine meat, in a given time, as bean meal. Some pigs fed with food mixed with fine top-



pings, weighed, at six months old, two hundred and eighty pounds, and the pork was allowed to be extremely tender. I last year tried to fatten hogs on grey peas alone, giving them milk to drink. The animals took on fat rapidly, but did not acquire so great weight as those fed on bean meal." The legumes are all of them excellent food for swine.

When peas and beans have got wet and mouldy to an extent which renders them unfit for culinary purposes, they should have scalding water poured over them, and after being allowed to dry, be reduced to meal for swine. The action of the hot water will at once remove fungi or mould, and render them sufficiently sweet to ensure their being eaten by the animals.

#### OLD HORSES.

The term old, as applied to horses, is generally intended to convey not only the statement of their age being past marks in the mouth, but also the common impression that comparatively they are of little value, if past eight or nine years. Now, if we rightly understand it, the horse has not attained his full growth and perfection of bodily frame, until he has passed his seventh year; and until growth is attained, he is just as unfitted for extreme hard labor as a man before arriving at full manhood. In this country, the practice of putting horses to work at two and three years, usually results in their becoming broken down by over-driving or over-straining before they have attained firmness of muscle, and capability for enduring labor. Thus it is, that horses are often, with us, rendered comparatively valueless before they have in truth arrived at an age of full powers and endurance. We have owned a number of horses, and whenever we have had one that had not been injured before arriving at maturity, we have found him more capable of performing regular labor at from ten to fifteen, than those of four to seven years. In our opinion, therefore, judging from observation, we consider the horse in his prime at from nine to thirteen years of age, always remembering that previous to his having attained his growth, say at seven years, he has not been over-driven, strained, or otherwise injured by reason of high stimulating food or abuse.—*Ohio Farmer.*

**THE MANUFACTURES OF PHILADELPHIA.**—A recent report of the Philadelphia Board of Trade exhibits the immense manufacturing industry of that city by a very impressive array of figures. An alphabetical list of the manufactures gives the following summary: 6,467 establishments; capital invested, \$81,608,502; value of raw material, \$77,473,677; number of persons employed, adults, 107,931; value of products, \$152,355,318; average production to each person \$1,411 60; average production of each establishment, \$23,558-87. There are 525 establishments for the manufacture of textile fabrics, 649 for the production of iron and steel wares, besides 190 where the manufactures are partly iron and steel, 1,523 clothing establishments, 139 for working gold

and silver, 592 for wood, 76 for clay, sand and earth, 57 for paper, 206 printing establishments, 116 distilleries, 101 factories for the manufacture of leather, exclusive of boots and shoes, 78 soap, candle and oil factories, and 44 chemical establishments. The population of the city is 600,000.

*For the New England Farmer.*

#### SOMETHING MORE ABOUT MUCK.

There has already been a great deal said and written about muck and its use as a fertilizer; still very few farmers know, or believe, anything about its real value. It is set down by the majority, even here in enlightened Massachusetts, as a branch of book-farming that won't pay. Very many men tell me this. I ask them how they know? Because, if it was really good for anything, it would be more generally used—in their immediate vicinity, of course. I tell them there are sections where some find it profitable, and use all they can get, and cite some one near. O, well! no doubt 'Squire Jones does make it pay, he gets his money easy, and can afford such expense as getting muck. Granted, that the 'Squire does get his money easy, he does not get any easier than that he gets from muck. I know that a large majority of the farmers who live within half an hour's ride of Worcester city, (by farm-horse conveyance,) feel like this.

While travelling in that vicinity the other day, I saw a tall, robust looking man whittling away with a draw-shave on a long pine log; there were two or three bright, active boys, his sons, in an adjoining field, digging potatoes, and three or four yoke of steers in another field—his oxen. The land about his buildings *used* to be *good* land. He said his grandfather had raised forty bushels of winter wheat per acre on it, but it was new land then, and the seasons were better; there was no "midge" or other insect to destroy it, &c.; that twenty bushels was a large yield now. He showed me another piece where he had helped mow two tons of hay per acre, that cut one ton now, and his corn and potatoes were about the same.

I asked him why he did not manure his land.

"I keep more cattle than father did, own meadows, buy hay, &c., but manure don't seem to do as it used to. If it was not for my trade, I could hardly live and keep out of debt. My father made pumps, and I make the same kind; a good thing, and no mistake."

"How much profit do you make on such a pump?"

"I *earn* about \$1 a day, and board myself, usually; now, I get a good deal less."

I pitied that great mass of muscular strength before me, but from every day's experience I knew there was no help for him. He would always do as his father had done. I saw his eldest son approaching, so I cast my eyes around to find if I could see anything near as proof, for I was determined to sow a few progressive seeds in his active brain, and lo! the proof was within a stone's throw of us.

While this man had been hacking away on his old-fashioned wood pumps, wasting time and timber, the soil that was his father's had been washing off into the valley below, and there lay thou-

sands of loads of his and his neighbor's No. 1 soil, "as rich as mud." There were acres of land nearly dry then, the bottom of a reservoir, and hundreds of loads of decayed leaves were mixed with the soil—much better than his *meadow hay manure*, that he boasted about.

I asked our pump-maker why he didn't haul up some of that rich stuff down there, and show his neighbors some of the crops of '76—keeping my eye on the bog.

"I can't afford to haul muck," was the short answer.

"Yes, but I saw one man hauling out down below here from a very bad place; don't he make it pay? His land looks in the best condition of any farm about here, though naturally poorer than yours."

"Well, yes, he is fixing up some; but he got his money easier than I did mine. He lectured for his money, sold books, &c."

"Father," said the son shyly, "you said that muck and stuff Mr. F. put on his hill did make the grass grow wonderfully last summer, and you would try it, if I got time."

"But you must go back to your potatoes, for we want to carry this pump off to-morrow."

"Darn the old pump," growled the boy, "'tain't worth nothing compared with hay, nohow." But he expected something, and looked to me for help, so I sidled along up to the father, whose ire began to rise, and praised his work and tools, (which, by the way, were the ones his father used—good fifty years ago,) and he forgot "bub," muck, and all but pumps, and their relation to hard coin. Mark me, "bub" will never forget that conversation, and when he gets into some such town as Weyland, Mass., where are thinking, progressive men of his own class, who have provided themselves with a good library and library building, &c., then he will learn to get his money easier than by working at a disadvantage.

I had occasion to speak of the muck in this particular reservoir bottom to one of our pump-maker's neighbors, a *reformer*, and very intelligent man. He and his sons were doing a very heavy job, for little or nothing, and boarding themselves. He didn't believe in muck; said he wouldn't give \$100 for all the muck in the bottom, delivered.

He does believe in manure. In haying-time he scrubs around the pastures and roads, wherever he can buy or beg a chance, and feeds everything out on the farm; takes cattle to winter, &c., because he wants the manure. But *he* don't believe in muck, O, no! or in using sulphate of lime and plaster on his stable floors—never'll pay him. His father didn't do it. So he has a vile, filthy, *hot-bed of disease* under his stable, and in it, too.

Now, my young friends, we have heard these men's stories of profit and loss, and I might cite hundreds and thousands of cases like these, all over New England. In some sections, I have found farmers making shingles, in others getting out railroad sleepers, railroad wood, &c., amounting to about the same profit as pump-making and walling from home, by farmers. In nearly every instance there were large deposits of valuable vegetable mould, muck, saw-dust, &c., (in another article I will speak of saw-dust, my expe-

rience with it, &c.) in their immediate vicinity, but they thought it worthless.

You may think, as some of them said, that they were obliged to do these things to get ready money. I don't recollect an instance where I thought so. Nearly every farm was overstocked for the winter—farmers having more pasture than tillage land—for want of muck, and therefore several young cattle, nice and fat, that would be worth less next spring than now, and weigh less, if all were kept, that better be sold at a discount at once, than kept. On many farms two-thirds of the cattle would weigh more next spring than all will if kept—and make just as much manure, this winter.

The facts are these; and if any one wishes to commence an argument in your paper to disprove them, he would do the public more good than so much thrashing of my faithful but uneducated canine friend has. It will take three tons of such hay as these hard-working farmers use to make a cord of manure:

| THREE TONS WEED AND MEADOW HAY.        |  | DR.     |
|--|--|---------|
| To cutting and hauling.....            |  | \$9.00  |
| To feeding out.....                    |  | 3.00    |
| To cutting brush to pay for it.....    |  | 3.00    |
|  |  | \$15.00 |
|  |  | CR.     |
| By 1 cord third quality manure.....    |  | \$2.00  |
| By advantage to stock.....             |  | 9.00    |
|  |  | \$11.00 |
| TO LAYING WALL.                        |  | DR.     |
| To 10 days' work.....                  |  | \$9.00  |
| To 5 days making pump.....             |  | 4.00    |
|  |  | \$13.00 |
| Board at 25 cents per day.....         |  | \$3.75  |
| Balance for 15 days' work.....         |  | \$10.75 |
| MUCK.                                  |  | DR.     |
| To 15 days' drawing.....               |  | \$10.75 |
|  |  | CR.     |
| By 15 cords second quality manure..... |  | \$41.25 |

Will it pay? The muck is worth almost as much more to put behind cattle and mix with stable manure to absorb the liquids, and keep it cool—making at least \$75.00.

Wayland, Oct. 12, 1861.

#### WHY CATTLE CHEW BONES.

S. EDWARDS TODD writes frequently for the *Country Gentleman*, is a good writer, and communicates many valuable facts. In a late number of that excellent paper, he assigns as a reason why "cattle try to eat bones," that *they lack salt*. In this we think he is mistaken. In this section, our people are very attentive to their cattle in this particular, giving them salt two or three times a week, as much as they will eat,—and yet it is no uncommon thing to see cows, especially, chewing bones, with apparently great relish.

There is a want, we think, beyond this, that is unsupplied by the feed in our pastures, which have been cropt for many successive years, with little or nothing returned to them, to supply the bone-making materials. We have never yet seen an animal chewing a bone that had access to a plenty of fresh grass of several varieties. It is

our impression that cows chew bones on the seacoast, where they are not only constantly inhaling the salt sea breezes, but a considerable portion of the hay they eat is salt or marsh hay. Perhaps some of our correspondents who are in the habit of giving constant attention to their cattle, may give information on the subject.

*For the New England Farmer.*

#### WHEN SHALL WE PLOW?

MR. EDITOR:—This is a subject of much importance to every "tiller of the soil." Many of the farmers in this vicinity are doing their work in the fall; others continue in the old way of plowing in the spring immediately before seeding. From observation, as well as from experience, I am inclined to believe that fall plowing is preferable, especially for the small grains.

The action of the frost and atmosphere have a beneficial effect upon the newly-turned soil, pulverizing the hard lumps of earth, and the better fitting it to receive the seed in the spring. Besides this, grain can be sown several days earlier than when the plowing is delayed until spring. This is a decided advantage, as every one is aware that early sown grain fills better than that sown late. As to land intended for corn, I am not so fully satisfied as to the best time for plowing; however, I am inclined to the belief that the fall is as well; as thousands of insects will be destroyed by the frost.

Whatever difference of opinion there is as regards the time of plowing, there is one fact all will concede; that it should be done well, whether it be done in the fall or spring. To do the work in a proper manner, it requires a good team, a good plowman, and a good plow. If either of the above requisites are wanting, we cannot expect perfect work. The team should be strong and well trained to the work. The plowman should be a good teamster, and have experience in the business. The last, but not the least, is the plow. Although there are, at the present day, many good plows, perhaps there are none without imperfections. In the last ten years, I have bought no less than ten new plows, and notwithstanding I have some very good ones, none seemed to be *just the thing* until I tried the "Cylinder Plow," manufactured by Smith & Field, Greenfield, Mass. The fault with some of my plows is in the width of bottom; not leaving the furrow wide enough for the team to travel in. Another fault is, that while they would do good work on level land, free from stone, they do not work well on stony, rough ground. The "Cylinder Plow" does the best work on stony land of any one I have ever used. It turns a furrow wide enough for the team to travel in, and turns it well. It is, I believe, of easy draft, and my men say that it is the easiest plow to hold that they ever used. From the peculiar construction of this plow, I am satisfied that it is well adapted to all kinds of plowing, and I can cheerfully recommend it to all those in want of a good plow. GEO. CAMPBELL.

*West Westminster, Vt., Oct. 18, 1861.*

REMARKS.—We know Mr. CAMPBELL well, and something of his mode of farming, having visited

his farm, and observed it critically. We have never seen the plow to which he refers, but should have much confidence in it, from Mr. C.'s recommendation.

#### EXTRACTS AND REPLIES.

##### THE RUTA BAGA CROP.

1. Is the ruta baga crop a profitable one?
2. What kinds of soil will it grow on to advantage?
3. Are ashes a good fertilizer for them?
4. At what place can a person get good seed?
5. What is the best time for sowing?
6. Is broadcast sowing or regular sowing to be preferred?
7. At what distance apart would it be proper to sow the seed, if it was sown at regular intervals?
8. What would be a fair crop for an acre?
9. Is it a sure crop?
10. Is it exhausting?

##### A MONTHLY READER.

*Franklin, Mass., Oct. 29, 1861.*

- REMARKS.—1. Under proper management, the ruta baga crop is a profitable one.
2. It will grow well on any good corn land. We have known it to produce well on highly manured plain or sandy land.
3. Ashes are an excellent fertilizer for them—so is superphosphate of lime.
4. The seed can be procured at the agricultural warehouses.
5. There are various practices as to the time of sowing. Slight frosts do not injure them, and they will grow late in the autumn, consequently, they may be sown later than many other seeds. Some time during the first half of June will be sufficiently early, and some good cultivators delay even later than this.
6. There is no question in our mind but that it is cheaper and easier to sow in regular rows. The crop can then be mainly tended with the horse and cultivator. It is more convenient to weed and thin them, and to determine at once by the eye, what space to leave between them.
7. The rows should be at least two and a half feet apart, and the plants *one foot* apart in the rows, and a good crop will then cover the whole ground, before it is time to harvest it.
8. A fair crop would be six or seven hundred bushels. By high manuring and careful cultivation, you may attain to eight or ten hundred bushels per acre.
9. The crop is as sure as our other crops ordinarily are.
10. It is thought to be an exhausting crop. Many good farmers say that a second crop of ruta bagas on the same land cannot be obtained, and that it is difficult to get a good corn, grain or potato crop, without high manuring, on land just devoted to the ruta baga.

## ANOTHER BUG.

I enclose you a small branch of what is here called White-wood or Tulip tree, on which you will find, as I suppose, something preparing for mischief another year. What is it?

Meriden, Ct.

JULIUS PRATT.

REMARKS.—Your letter came to us via the "Dead Letter Office," and the insect or eggs, on the branch you were kind enough to send, had been pretty harshly handled. We do not recognize in it anything we are familiar with.

## BRAHMA FOOTRA FOWLS.

Early last spring I gave you an account of my experiment with a small flock of Brahma fowls for the past winter. I have kept the same flock through the summer, and they have continued laying even through the moulting season. I have disposed of upwards of 150 dozen eggs for sitting, and raised 125 chickens, besides the eggs used in the family. I am still of opinion that they are the fowls for the farm-yard. J. S. IVES.

Salem, Oct., 1861.

## BUCKTHORN HEDGE.

I wish to raise a long range of Buckthorn Hedge. Can I do so from the seed? C. H. C.

REMARKS.—You can—but it will be a long and tedious process, and you would be quite likely to find the hedge from them an uneven and unsatisfactory affair. It would be cheaper to purchase plants from those who make a business of producing them, than it would to raise them yourself, to say nothing of getting a hedge some years sooner.

## WHITE CHESTER HOGS.

Will some of your readers who are well acquainted with what is called up here the White Chester breed of hogs, give us a true history of them in full? By so doing they will much oblige many of your friends. T. CROSS.

Montpelier, Vt., Oct., 1861.

*For the New England Farmer.*

## FERTILIZING PROPERTIES OF WHITING.

MR. EDITOR:—Your correspondent "J. C. S." inquires respecting the properties of whiting, and why it should affect favorably the growth of corn. Whiting is chalk pulverized and washed in a large quantity of water and precipitated. Chalk is carbonate of lime, or lime with its alkaline property completely neutralized by carbonic acid. Hence whiting is a carbonate of lime minutely pulverized by means of water. There is no doubt that the minute subdivision of the particles of lime renders it more efficacious, because it is thus in a fit condition to be absorbed by the rootlets of the plants with which it comes in contact, and this affords another proof of the advantage of the complete pulverization of manurial substances. Any soil or crop that requires carbonate of lime will be benefited by whiting.

Concord, Oct. 28, 1861.

J. REYNOLDS.

## LOW HEADED FRUIT TREES.

In trimming fruit trees, we should always be careful to secure the trunk from the rays of the summer sun. Solar heat, by being long permitted to come in contact with the bark, is said to scald the circulating fluids, and thus cause many of the diseases which affect fruit trees in this climate. The foliage only should be fully exposed to the influences of heat, for that is capable of bearing it unharmed, and even to profit by it, when most intense. It has been asserted by distinguished terraculturists, that trees which are permitted to branch out low—say three or four feet from the ground—are rarely attacked by "fire-blight," "frozen-sap blight," black spots, or other diseases of the bark or limbs.

There is also another advantage attending this practice. The soil is kept lighter, looser, and more free from weeds, and there is no necessity of mulching. The high winds pass, also, almost harmless over the trees, and have not power to twist, rack and break the branches, or to detach the fruit, as they do where the branches aspire, and are exposed. A writer on this subject says: "The trees will be much longer lived, more prolific, beautiful and profitable. They are more easily rid of destructive insects, the fruit is much less damaged by falling, and the facilities for gathering it are much greater; there is less danger in climbing, and less danger of breaking the limbs. The trees require less pruning, scraping and washing—if the two latter are thought necessary, and the roots are protected from the scourge of the plow, which is too often allowed to tear and mutilate them."

The proper shape for fruit trees is that of an umbrella reversed. When this shape is communicated by pruning, the foliage is more freely exposed to the action of the solar rays, and to the air, which ought always to have a free circulation among the foliage and fruit. By communicating a conical form to any tree, although it may be rather more graceful and elegant in its effects upon a landscape, we certainly injure it in many ways, if looked upon as an object of profit. The fruit of apple trees which grows on the interior limbs, where the surrounding foliage and branches prevent the sun's rays from penetrating, and where the direct influences of heat are never felt, is, to a certain extent, insipid; it does not mature thoroughly, and will not keep so long or so perfectly as that which grows on the outside branches, exposed to the sun and wind. It also varies so much in shape—and especially in color—that we have known two plates of apples selected from the same Baldwin tree, one of which was pronounced by a skillful fruit-grower to be the Baldwin, and the other plate another variety!

*For the New England Farmer.*

**NOTES BY RAIL IN MASSACHUSETTS  
AND NEW HAMPSHIRE.**

Appearance of the Country—First Snow—Cattle in the Fields—  
—their Exposure questioned—Breeds—Durham, Devon and  
Hereford—Army Horses.

A few days ago an urgent business call obliged me to make a tour by rail to a small town beyond Claremont, N. H. If my excursion had been one of pleasure, doubtless I should have chosen a more auspicious season. As it was, the pleasant anticipations of a visit to a portion of the country where I had never been, could not shut out all forebodings of the vigorous weather which I might encounter. Determined to enjoy myself as much as possible, I assumed a guardianship of the car-stove, feeling that, by this means, I might be safe; at least for a portion of the journey. I had reason to congratulate myself for the wisdom of this precaution, as the weather grew colder and colder; the wind shrieking through the car-ventilators, the snow falling in occasional flurries, all combined to instil a greater appreciation of the comfortable position which I had secured. The cars, meanwhile, were rapidly whirling along the road to Fitchburg, and as soon as the suburbs of Boston had been passed, I began to look with interest upon the fields spread out before me.

The country along the road, till we near the New Hampshire line, is certainly, at this period, most uninteresting to the traveller. The existence of manufacturing towns seems to have relaxed the efforts of the farmers in their vicinity, and nowhere did I see that look of thrift which is such a prominent characteristic of the middle and western portions of our State.

So long had the advent of frost been delayed, that many people seemed to have doubted its coming at all, and had neglected to gather their corn and pumpkins; they must have suffered from their carelessness that very night. Many were still turning their cattle to pasture, doubtless laboring under the mistaken notion, that by doing so they would harden their constitutions so as to enable them to bear the better the rigors of the winter. Most of these poor animals had sought some sheltered situation, and stood shivering in contorted attitudes. A few hours' sunning in the middle of the day, may be profitable; but a prolongation of the exposure is detrimental. Such treatment in the case of milch cows will not fail to decrease the flow of milk, and to lower their stamina by forcing them to crowd their stomachs with the withered and frost-bitten grasses.

Nearly every animal that I saw along the road in Massachusetts, bore marks of a cross with the Durham. Their appearance and condition would seem to coincide with my idea, that for so hilly a country, the Durham is not profitable, but must give precedence to the neater and more compact Devon. The New Hampshire farmers seem to be convinced of this, as they have almost invariably preferred the Devon stock. Nor do facts prove that the common complaint against the diminutive size of the latter is always true. A gentleman whom I met, mentioned that at a Town Fair in Claremont, twenty-seven yoke of cattle were exhibited, the lightest pair weighing 3,900 pounds, and the heaviest 4,400 pounds. These were all grade Devons, and were sufficiently hardy to stand the extremes of climate.

I have no reason to doubt the statement, as the gentleman is a resident, and is a person entitled to credit. I do not wish, however, to be considered an indiscriminate advocate of the Devon. The Durham may be profitable in Connecticut, in Central or Western Massachusetts, but I think, unless more than ordinarily well cared for, would, in New Hampshire, soon degenerate. If a large breed of cattle is desirable, I think that the Hereford would be found suitable for farmers living on the banks of the Connecticut river. It matures slowly, but is possessed of a hardy constitution, is nearly as large as the Durham, and its beef is unrivalled. The oxen are quick and gentle in the yoke, and are easily handled. This breed seems to be the most powerful rival of the Durham, in England, and in some quarters, it has had the preference.

The contractors of horses for the army, have been making purchases in this region, and these animals are becoming scarce. Their value, however, has not increased, as there is now no active demand.

I regret that circumstances did not permit me to remain in New Hampshire a few days longer. As it was, I gathered much useful information, and got some insight of the practice in farming in that State.

F. A. T.

*For the New England Farmer.*

**A COLD FRUIT HOUSE.**

Being a reader of the *Farmer*, and having noticed that through the medium of its valuable columns, you are willing to impart useful knowledge to all its perusers, I would be much obliged to you, or some correspondent, to give me a little insight toward the stock and management of a cold fruit house. My house is built to the end of my dwelling-house, facing south; it is 27 feet long, 10 feet wide, the sashes 12 feet long. I have dug out the earth 2 feet deep, all on the inside, and about 4 feet in front, drained it, and made my bed of turf, or old stable manure, old mortar and soot, street sweepings, &c. Now what are the best kind of vines for me to get, and how many should I put in a house of that description? How shall I proceed when planted?

My dwelling being heated by a furnace, I can, if required, apply a little artificial heat, if that will do. I can draw about 200 gallons of rain water on the inside of the house, towards watering the plants, &c.

THOS. P. JONES.

*New Glasgow, N. S., Oct., 1861.*

REMARKS.—We have had no experience in the management of a cold fruit house. There are persons who have, among our correspondents, some of whom we hope will reply to the inquiries made above.

THE BEAUTIFUL.—Beautiful things are suggestive of a purer and a higher life, and fill us with mingled love and fear. They have a graciousness that wins us, and an excellence to which we involuntarily do reverence. If you are poor, yet modestly aspiring, keep a vase of flowers on your table, and they will help to maintain your dignity, and secure for you consideration and delicacy of behavior.

## MAPLE SUGAR.

The making of this important and delicious article will probably be of unusual interest to a portion of our readers, the coming sugar-season,—and we, therefore, hasten to lay before them the plan of an Arch, with the description for its construction, together with details of operation to make sugar profitably and of high quality.

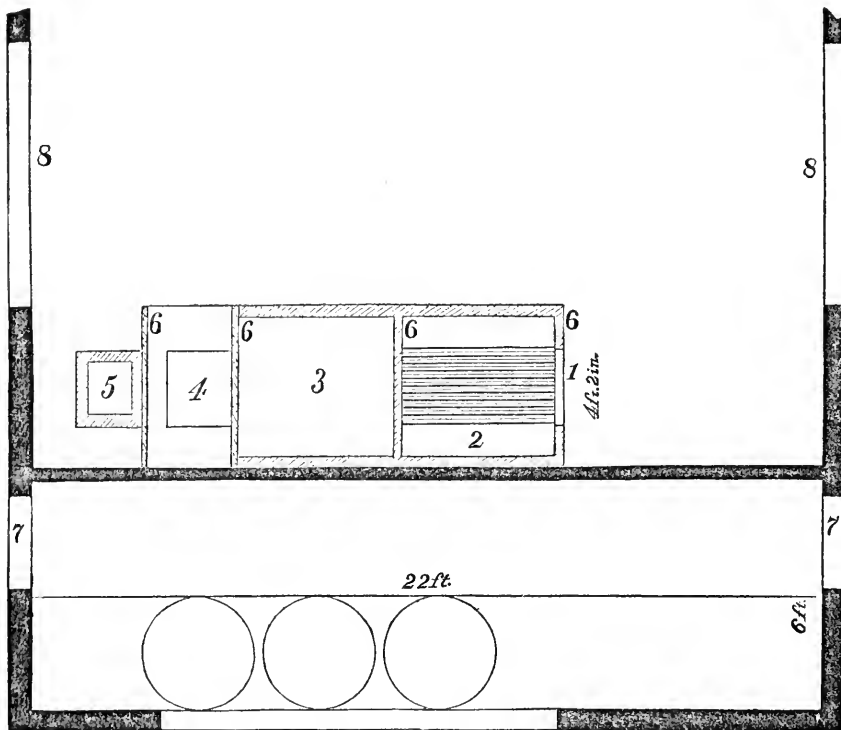
From several drawings and descriptions which we have received we have selected that of Mr. BASSETT, as appearing to us, in our limited knowledge of the matter, to be the most perfect and economical, all things considered. When the sugar orchard is not large, perhaps a smaller and cheaper arrangement may answer the purpose. Our object, however, is to give the most

perfect plan we can, hoping that the same principles may be employed in the construction of smaller and cheaper fixtures.

Mr. BASSETT's description will probably be understood, but if further information is required, we have no doubt he will cheerfully communicate it, if called for, through the *Farmer*, so that all may have the benefit of it.

We would express our obligations to all the gentlemen who have sent us drawings and descriptions, and say that they are preserved and may be used, if other plans are thought desirable.

MR. EDITOR:—In your weekly of May 4th, I saw an inquiry for the best manner of building an arch. I have been waiting with the hope of seeing a reply from some of our Vermont friends, but none appearing, I propose to take up the



Plan of Shed and Apparatus.

whole subject of Maple Sugar Making, and more especially the modern improvements, which are as numerous and valuable as in any other branch of farming.

The accompanying plan of shed and boiling apparatus shows better than any description in words the idea I intend to convey. The shed is 22 feet wide, entered with a team by large doors at 8, 8. The boiler occupies a space 50 inches wide. 1 is the position of the doors to fire grate and ash pit. 2 and 3, the places for the boiling pans; 4, the place for the heater; 5, the chimney; 6, heavy cast iron bars crossing the arch for the pans to rest upon; 7, small doors opening into a

platform four inches higher than the top of the arch, and behind which is another platform, a foot higher still, upon which are placed the store tubs, with a long door opening upward behind them for unloading the sap from the gathering tubs. The shed can be made as long as desirable, the space beyond the doors being used for fuel, storing pans, tubs, &c.

*Cook's Sugar Evaporator* is considered by many the boiler, but there are some objections to it, which lead most of our sugar makers to prefer sheet iron or copper pans. It must be evident that, unless the flow of sap and the amount of fire are properly proportioned, the syrup will either

run off too thin, or be in danger of burning—and as most of us have the sap to gather, and a stock of cattle to take care of, it is very difficult to give it the proper attention. But whether Cook's Evaporator or the common sap pans are used, the first thing to be done is to select a location for the "Sugar Camp." Whether this be located in the sugar orchard or near the dwelling, will depend on circumstances; but as a general rule, for a moderate business, I prefer the latter; not near enough, however, to create danger from fire. If possible, the ground should slope sufficiently to admit of drawing the sap from the gathering tub into the store tub through a siphon, and from that to the pans by a faucet, and if a solid rock foundation is at hand for the arch, by all means take advantage of it. Sufficient shelter ought to be provided for fuel, boiling apparatus, storage and buckets. If rock cannot be had, the foundation for the arch should be made by removing the earth, and filling in small stones to a depth and size sufficient to avoid all heaving by frost, and if there is any chance for water, it will be necessary to guard still farther by *thorough draining*. To ensure durability, the arch must have the walls one foot in thickness, if built of brick, which is the best material. For convenience in saving the ashes, it is well to have the bottom covered with flat stone, or, rather coarse gravel.

For the manufacture of 1500 or 2000 pounds a year, a neighbor has a very good apparatus, consisting of two pans, each 47 by 20 inches on the

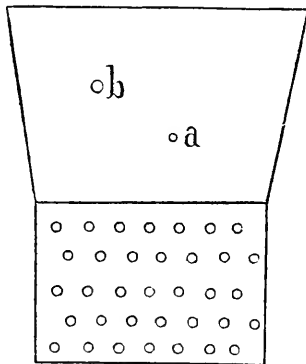


FIG. 1.

a, small tube for drawing off the sap into the pans. b, larger tube to prevent the possibility of the sap boiling over.

bottom, and 6 inches deep, and a heater, (Fig. 1.) the lower part reaching across the arch (12 inches,) and 13 by 13 width and depth, with 35 1/4 inch tubes for the passage of smoke, and the top, which is about the same height, flaring to 18 by 24 inches.

These pans are lapped on the brick-work 2 1/2 inches on each side, and supported at the ends by cast iron plates made for the purpose, and have a fire-box under them 12 inches deep. I should have stated that these pans were placed over the same fire-box, ends together, and the heater between the last pan and the chimney. The arch has a cast iron mouth, with a door 14 by 12 1/2 inches for fuel, and one 10 by 12, opening into the ash pit, which extends under the whole of the grate, the latter being composed of five separate bars, each 4 feet long, and 2 inches wide by 3

deep. The lower door serves to regulate the draft. The sap is conducted from a faucet in the store tub through a wooden spout, with a strainer attached, into the heater, and from a spout a few inches below the top of the heater into the back pan, and a small siphon (Fig. 2,) carries it to the other pan; the end of this siphon must be bent upward a little, or it will fill with steam. Perhaps I should add, the heater is made of tin,



FIG. 2.

and one of the size described costs about \$11. If it is desirable to leave, for any great length of time, it is easy to supply its place with a lid, and conduct the sap directly into the pans. Having disposed of that portion of the work, which should be done at this season, I will take a look at the other apparatus.

The most common form of bucket is that of a common pail, made of pine, with a piece of sheet iron to hang it up by. There are some advantages and some disadvantages in this form. They are readily packed together for storage or transportation, and the ice can easily be removed when they accidentally become frozen up, but on the other hand they catch much more water in storms and more leaves and dust in high winds, than if made smallest at the top. In purchasing, those which are thoroughly painted with *genuine oil paint*, and do not shrink in dry weather so as to leave cracks, should be selected, and I prefer those having three hoops and holding about two quarts more than a common "shaker pail," as some very good trees will yield sap enough, sometimes, in twelve hours, to fill a four gallon bucket. Spouts are now made of white birch, or some similar wood turned and bored. For tapping the trees, we use Cook's bit, manufactured by Lamson, Goodnow & Co., Shelburne Falls, Mass., an illustration of which may be seen in Todd's Young Farmer's Manual. These bits do their work easier and smoother than the common bit, but their greatest superiority for this work arises from the readiness with which different sizes follow each other, as we can begin with a 7-16 bit, and when the trees begin to dry up, can follow with 8-16 and again with 9-16 and 10-16, if we wish, thus keeping up the flow of sap for a long time.

For hanging the bucket, we use hooks made of the form and size of the annexed drawing. [While the engravings were going on, this hook was unintentionally omitted.] They are made long to allow the lower part to rest against the tree, and do not require driving in as far as shorter ones; and here I take the liberty to say that no man will use common cut nails for this purpose, unless he retains a spice of barbarism in his manner of doing business. By the way, there is a difference of opinion about the effect of driving hooks into the trees, some contending that it causes no appreciable damage, and others that it is equal to putting in an extra spout, and consequently they prefer hanging on the spouts, the disadvantage of which is, the spouts must be tapered longer and driven harder, diminishing the flow of sap to some extent.

An inspection of some of our sugar orchards will show that it is not superfluous to say that all the work must be done in a neat and workmanlike manner; the spouts should point a little down-

wards and never upwards, and if two are used, they should be placed as far apart as they can be, and allow the sap to drop into the tub without waste, and not be put in close together, or one right over the other, and pointing from each other. And every bucket which cannot be made to hold, had better be thrown away entirely.

For gathering, a pine tub, tapering considerably towards the top, with a hole large enough to admit a pail near one side of the upper head, and fitted with a tight lid, is most convenient.

A siphon and large spouts are next required. The siphon should have the short arm long enough to reach within, say half an inch of the bottom of the tub, and the other two to six inches longer, according to the rapidity of flow desired. A siphon two inches in diameter, and of the length usually required, can be made by any tinner for about 75 cents. With a siphon (Fig. 3.) two inches in diameter, and tapered to one and one-half inches at the outlet, and four inches difference in length of arm, a three and one-half barrel tub can be emptied in five minutes. It must be recollected, that, with such a flow, a wooden conductor very much larger than the siphon is required to convey the sap to the storage.

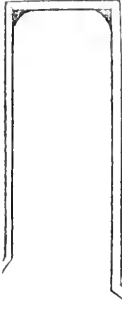


FIG. 3.

#### BOILING, CLEANSING, ETC.

When I say everything should be done promptly, and with scrupulous regard to neatness, it sums up the whole. The bucket, storage, gathering tubs, and everything connected with the work, should be thoroughly washed with a cloth and scalded, both at the commencement and at the close of the sugar season; the sap should be gathered and evaporated with as little delay as possible, and should not be allowed to remain in the pans longer than necessary. No burning should be allowed, no smoke or ashes fall in, and both sap and syrup be strained through a flannel strainer, the latter as thick as it can readily run through.

With these precautions properly attended to, I consider all additions of skimmed milk, saleratus, and white of eggs, &c., worse than useless. I, however, prefer to keep it stirring with a paddle, after "boiling off," until nearly cold, which makes the grain finer, improves the color, and, to my taste, gives it a better flavor, besides making it much easier to dip out when left moist in tubs, an advantage readily appreciated by those who have had their patience tried in vain endeavors to penetrate the contents of the sugar tub with anything short of an ax, or mallet and chisel.

While speaking of the care of buckets, I forgot to say that they should be brought in and cleansed *immediately*, when the sugar season is over, as it not only keeps them neater, but their durability is increased very largely.

It may not be amiss to inform your readers that the arch described, was built by Mr. M. BISSELL, of Wilmington, Vt., and that most of the materials required for the arch and sugar camp, can be obtained in that vicinity, as nearly perfect as all the recent improvements can make them.

Ashfield, 1861.

WM. F. BASSETT.

#### TOP-DRESSING GRASS LANDS IN AUTUMN.

Our attention was recently called to a piece of grass land upon which some interesting experiments had been made in top-dressing. The piece consisted of two or three acres, had been under-drained, plowed, seeded to grass, and the whole of it in every respect treated alike with the exception of the time of top-dressing it. The same quantity and quality of manure was applied to one part as well as another, and yet the difference in the time of applying the manure made a difference of a hundred per cent. in the crop!

On one portion of the field, the dressing was applied last fall—but we did not learn whether it was before the ground had frozen or not. The manure was made very fine by frequent overhauling—and spread directly from the cart—not deposited in heaps. On the remaining portion the dressing was applied in the spring, as early as it was safe for the team to pass over the sward without cutting it up much, and where the dressing was applied in the fall, there was double the amount of grass that there was on the spring-dressed portion!

We hope many careful experiments of this kind will be made this fall.

#### RINGBONE CURABLE.

Dr. R. Thompson writes to the *Ohio Farmer*, that to cure the semi-osseous deposit, called ringbone, the animal must be thrown and well secured; with a strong scalpel make a crucial incision over the highest part of the tumor. Having dissected the four angles of the skin, back to a line corresponding with the base of the tumor, expose the entire surface of the morbid mass to view. The next step in the operation is the removal of the unnatural growth by the appropriate use of a carpenter's three-fourths or inch gouge; either manipulated with the hand alone, or assisted by the gentle use of a light mallet. With a proper knowledge of the parts involved in the operation and due care, there need be no fears of opening the articular capsule. Leaving the surface of the bone as smooth as possible, the angles of the skin are brought firmly together by means of a strong needle and cord the size of a slender fishing-line. A few slips of adhesive plaster will add much to the security of the dressing, and consequently to the more speedy healing of the wound. To these ends, also, the quietude of the horse will contribute greatly. Over this a few turns of bandage may be thrown and firmly secured. Should the parts become swollen, tepid water and whisky may be freely applied by pouring every eight or ten hours, until the swelling subsides. Whether there is anything new in this, I do not pretend to say; but this I do know, that by this safe and simple operation I saw a horse cured of the "ringbone" within the space of two weeks, where previous to the operation he could scarcely mark the ground with the tip of the hoof, so great was his suffering.



For the New England Farmer.

## THE DITTY OF THE MEADOW-OWNERS.

BY R. F. FULLER.

The Muse, that, in Italian climes,  
Loved yeomen of the olden times,  
Lent Georgies her poetic charms,  
To teach the management of farms,  
And framed with skill the sweetest lays,  
The lives of husbandmen to praise—  
Think not, that she has ceased to care,  
In modern times, how farmers fare!  
No! to her first love she returned;  
And with rekindled ardor burned  
Her ancient flame of Arcady,  
Roused by the wrongs of Sudbury,  
Wayland and Weston, Concord, Stow,  
And all the towns, where waters flow,  
Or would flow, of the river, which  
Is dummed to make a few men rich—  
A few men rich; but, I am sure,  
For one made rich, a thousand poor!  
Although years tack the evil date,  
She only heard of it, of late:  
For other themes she thought upon,  
And dwelt afar, in Helicon.  
I happened in, as they were telling  
The story, by her fountain welling,  
Moved by the wrongs, which they recount,  
A tear she dropped into the fount;  
To tinge with sadness every lay,  
Until these wrongs are done away!

Thus went the story:—You must know,  
The Concord has a feeble flow;  
Yet, God designed that sluggish river  
To be of fruitfulness the giver.  
Alluvial acres he had spread,  
Ten thousand by the river bed;  
Which, like the Nile, at periods,  
In fall and spring, the river floods,  
And with deposit richly feeds;  
The field no plow nor dressing needs,  
Nor other labor, but to mow  
The rich crops, on the meadow grow.  
The river, though its stream was dull  
And level with the banks, when full,  
Well served the purpose, planned by God,  
Nor in the summer overflowed;  
Unless, indeed, in those events,  
Which loose awhile the elements:  
Yet such the sad exceptions were,  
Which in the best of rules occur.

This stream a corporation saw,  
And planned to bind it by a law;  
Cared not for meadows, where it ran,  
And pitied not the husbandman,  
Who fall a hundred fold must lose  
The gain, that by a dam accrues.  
Such bodies self alone controls;  
For corporations have no souls.  
They cared not for the farmer's hay,  
If they could dodge the loss to pay;  
Though stagnant waters injure health,  
They cared not for the Commonweal.  
—Well! what, some seventy years ago,  
Should this same corporation do?  
The Assembled Wisdom they persuade,  
Anxious to manufacturers aid,  
A bill to sanction as a law,  
Which their own cunning lawyers draw.  
The honest farmers never dream,  
Of what is plotting for the stream.  
Plain people, who no mischief plan,  
Expect none from their fellow-man.  
Long had the act passed, ere a word  
The farmers of the charter heard.  
Not half the General Court, indeed,  
Had noticed how its sections read:  
Especially one clause so sly,  
Expressed in few, to 'scape the eye;  
Which claims for damages they did,  
To one year after limited,  
Without the remedy the law  
Of mill acts has provided for.  
The corporation lawyers knew  
That not in one year, if in two,  
The injury the dam had done,  
To half the farmers would be known;  
The sluice-ways could be managed so  
A year to let the waters flow;  
While farmers, for redress, by law  
Of mill acts, would be looking for.

But the big wigs grew still more bold,  
Well fed with corporation gold;

And, still more surely to avoid  
All recompense, their wits employed.  
Another act they lobbied through;  
The court abolished, where to sue;  
And in a state of nature left  
Farmers, of remedy bereft.  
The yeomen, by and by, awake;  
The thing begin in hand to take;  
Seek the remaining courts, and try  
To find in law a remedy.  
Their meadows ruined by the flood,  
They thought their case was surely good.  
The Judges long deliberated,  
While in the flood the farmers waited.  
At length the courts of law decided,  
No remedy the law provided.  
With wonder this the farmers saw—  
Why, surely justice must be law!  
Or, if not law, in equity  
They surely have a remedy.  
The evil is too bad to bear;  
Redress there surely is, somewhere.  
So they endure the law's delay;  
Suit after suit get under way;  
Pay well the lawyers, then court cost—  
For every suit at last is lost!  
Thus, years and years, at law they tried  
To get redress, and were denied.  
And, every year, the damage grew;  
For which they never got a sou.  
Yet they refrained, the dam by force  
To clear from out the water course.  
Right wonderful their patience was,  
Thus outlawed by the worst of laws!

For years, the farmers bore the curse;  
Which, every year, grew worse and worse.  
Another corporation hige,  
To keep up always this deluge,  
Two reservoirs had added on,  
At Marlborough and Hopkinton;  
From whence, whenever summer would,  
In pity, dry the wasting flood,  
The reinforcing waters came,  
At signal sent up from the dam.  
At length, a rumor vague was heard;  
Like that, in ancient days, absurd,  
Which published once that Pan was dead.  
Now this same wandering rumor said,  
Not Pan, nor any other devil,  
But one, whose life had done us evil,  
The corporation which had built  
The dam, the forfeit of its guilt  
Had paid. Death was not cheated, as  
The damaged meadow-owner was!  
'Tis said, at every death, one birth  
Or more fills up the place on earth:  
And now, new hopes to being start,  
In every meadow-owner's heart.  
Since his oppressor is no more,  
Relief must be for him in store.

Did the old tyrant make a will,  
For posthumous oppression, still?  
Or did he make, what lawyers all  
*Donatio causa mo tis* call?  
It was an anxious question, whether  
The dam and builder died together.  
We searched the registry; and read  
The corporation's only deed;  
Which, while expecting its decease,  
Doth all its property release,  
Expressly saving, in a clause,  
All rights derived from special laws.  
O! joy to meadow-owners! Thus  
They get no right to injure us!  
Now, o'er the corporation old,  
The Court Supreme grand inquest hold.  
Peace to its ashes they decreed,  
And ascertained 'twas dead indeed.  
A law, confirming this, is past;  
And dead enough it is, at last!

The farmers all fresh courage take.  
They meet, and have a merry wake;  
Tell o'er the wrongs, which, like a lamb,  
The farmer suffered, from the dam,  
That fleeced him of his meadow crop,  
Robbed him of profit, health and hope,  
Excepted him, with bitter ban,  
From covenant of God with man.  
Oft in the cloud his rainbow set,  
A sign that He remembered yet!  
The meadow-owners see it glow;  
But not for them the promise-how!  
Its guarantee they once enjoyed,  
Until a charter made it void,  
And, fearing neither man nor God,  
The corporation raised a flood.

But now the meadow-owners can  
Behold I with joy the rainbow span.  
Yet, still the dam is ; and will stay  
Until it is removed away.  
Shall they march forth, a lusty band,  
Themselves to take the thing in hand :  
Or, will it, after all, be best,  
By legal means, to be redressed ?  
Now, I will challenge you to find  
A class so peaceably inclined,  
To law so loyal, near or far,  
As the hard working farmers are !  
The corporation's grantee though  
The meadows yet presumes to dower,  
Their speakers' patience still exhort,  
And reference to the General Court.  
So they petition ; and they find  
The legislature well inclined ;  
Commissioners appointing, who  
For months the subject study through,  
And make elaborate report,  
Next year, unto the General Court.  
Their arguments are so well weighed,  
That they can scarcely be gainsaid.  
The corporation's grantee cries  
For quarter and for compromise.  
To lower the dam he will agree,  
At least for inches thirty-three.  
Some months he asks, that, for the change,  
Machinery he may arrange.  
All this good-natured farmers give,  
And hope henceforth in peace to live.  
A law soon passed, and was approved,  
To have, at last, the dam removed.  
Commissioners were fixed upon,  
Whose duty was to take it down.

Now, through the river-valley, ran  
A thrill of joy, from man to man !  
Both those who had not, and who had  
The meadows, equally were glad.  
If indirectly, all must feel  
And share it, as a common weal.  
Alas ! a cloud comes o'er the scene !  
"Injunction"—what could that word mean ?  
Why, simply this : a thing, well styled  
A "Libel," in the court was filed.  
And this presumes our act to call  
A law unconstitutional.  
And so the law is staid, to see  
If this indeed the case may be.

The farmer now by fear is tossed,  
Lest his relief should all be lost.  
But, happily for him, it stands  
For judgment in the best of hands.  
Here and abroad, our Court Supreme  
Has always been in high esteem.  
And, with its present bench, it will  
As highly rank, or higher still.  
The meadow cause the Court well weigh ;  
And judgment give, without delay,  
Dissolving the injunction ; so  
Decrees Chief Justice Bigelow ;  
And all the Court, without division,  
Concur in this most just decision,  
Which his opinion clears of doubt,  
And strong as granite reasons out.

Well ! are the farmers now to get  
Redress, they long have sought ? Not yet !  
For, while the farmers were not watching,  
New opposition still was hatching.  
The manufacturers were told,  
With an assurance very bold,  
Although they paid their damages,  
Under the mill act usages,  
Our law was for their mischief meant,  
And would be made a precedent.  
Unknown the circumstances, they  
Were, some of them, so led away,  
And thus impressed, men were selected,  
And for the General Court elected.  
And thus a stay-law keeps us here,  
Cursed by the dam, another year !  
The clamor was—the dam has done  
No harm ; why would you take it down ?  
Experiment for seven days,  
The plausible mill owner says,  
In hydrostatics versed, he knows,  
How slow the sluggish river flows ;  
And, that the dam at Billerica  
Both near and far has bred a bar,  
From sediment and weeds, that grow  
In rivers suffered not to flow.  
They might the main dam take away ;  
Still, while they let the others stay,  
These daughter dams would, every one,  
Forbid the water course to run.

Another argument they used,  
The commonwealth was much abused,  
By damages, 'twould have to pay,  
For taking the old dam away.  
This pity, we suspect, of theirs,  
Like crocodiles, dissembled tears.  
They had no charter, giving them  
The right there to maintain a dam :  
And not one cent would be to pay  
To them, for taking it away.  
I'll warrant you, if 'twere not so,  
They'd give three cheers, and let it go !  
The real loss, for which they groan,  
Is losing what was ne'er their own.

Such was the story that I heard.  
The Muse to pity deep, was stirred,—  
She made, at once, a proclamation  
To all within the Yankee nation,  
Who hope her aid, in coming time,  
To use the utmost power of rhyme,  
Redress for this great wrong to gain,  
And free the river from its chain,  
To make the genius of the flood  
Dispenser once again of good,  
Its metamorphosis reverse,  
Back to a blessing from a curse.  
And, that the meadow-owners may  
The rainbow in the sky survey,  
And feel that they its promise share—  
Henceforth no deluge shall be there !  
The harm so far outweighs the gain,  
The farmers must relief obtain.  
Six summer months, at least, 'twould seem,  
The mill should operate by steam.  
While Proserpine dwells with Pluto,  
We'll let the river overflow.

#### THE GROWTH OF FLOWERS.

In his address at the Queens County Agricultural Fair, at Flushing, L. I., Mr. Richard C. McCormick spoke thus of the cultivation of flowers :

Not less profound than has ever been my admiration of the trees which so richly ornament and shade this favored village, is my appreciation of the beautiful flowers which at all seasons decorate its graceful gardens and greenhouses, and which to-day form so attractive a feature in the superb variety of nature's wonderful works gathered beneath this capacious tent. Examining each peculiar tint and inhaling each exquisite fragrance of these dainty creations of sunshine and of shower, I have experienced a feeling similar to that which excited Linnæus, who when he first saw the English Downs all aflame with the golden flowers of the furze, knelt down and thanked God for having made anything so beautiful. The varied splendor of the flowers, who shall describe it ? "They toil not, they spin not ; and yet I say unto you, that Solomon in all his glory was not arrayed like one of these."

That sturdy British reformer, Cobbett, who was more successful in agriculture than in politics, while resident in North Hempstead, in this county, in the early part of the present century, used his ready pen in a simple but masterly exposition of the requirements of practical husbandry. His voluminous writings cluster with common sense, and a radical Quixotic sentiment here and there, may be pardoned in view of the many valuable hints and suggestions, the result of an unusual experience and peculiar powers of observation, with which his works on rural subjects are replete. From his passionate fondness of the grosser vegetables, especially the ruta бага turnip, which he first introduced in America, and cultivated with great success, it might be supposed that he had no better appreciation of flowers than had Wordsworth's stoic, Peter Bell. But not so. In his

"American Gardener," which may be read at the present time to advantage, he rebukes those who think that flowers are of no use, and exclaims, "For my part, as a thing to keep and not to sell, as a thing the possession of which is to give me pleasure, I hesitate not a moment to prefer the plant of a fine carnation to a gold watch set with diamonds."

In this light I wonder that every farm has not its flower-garden, however small. In its perfection it is, of course, unattainable without great care and expense; but a single dollar a year, judiciously laid out in seeds and bulbs, will, from one tiny plat, yield, from the first crocus to the last chrysanthemum, a perpetual joy. It is, indeed, passing strange that there is not a more general enthusiasm in the cultivation of flowers. It has been said that they are the alphabet of angels, wherewith they write on hills and plains mysterious truths. Certain it is that they are ever suggestive of the pure and holy, and enabling to those who live in their gentle presence.

Lafayette, visiting the mother of Washington at Fredericksburg, found her busily engaged in weeding her flower garden, and the incident suggests that the fair sex can find no more wholesome pastime than that given to floriculture. They may do much in the training of the rose to brighten their own cheeks with its blushing hues, and in the sweet air of the garden find an invigoration which no other source can provide. Our maidens should, at this time, tend their gardens with the fondest care, for when their lovers who have gone in the war for the Union and the Constitution shall have redeemed the dear old flag from the disgrace which heartless traitors and rebels would heap upon it, and return to their gentle embrace, covered with the glory and dust of battle, will they not merit garlands choicer than ever graced the brows of Roman victors, or adorned Grecian heroes flushed with the triumph of their classic arms?"

*For the New England Farmer.*

#### A MODEL TOWN IN VERMONT.

Our New Cash System—True Patriotism—The Season—Crops—Horse Rake.

I am so well pleased with the new arrangement of your paper, and the price for 1862, that I cannot forbear giving a word of congratulation and encouragement. May you be doubly successful under the administration of the cash in advance principle, which, by the way, I have always practiced, and been satisfied that I got the worth of my money at that. Now, if it is a possible thing, in these hard war times, to double your subscription list in this town, before January, I will see that it is done.

I must tell you that with a population of only about 1000 people, and but a trifle over 200 voters, we have sent over 100 men to fight our country's battles, and there are still more that are anxious to go, and will, probably, if any more regiments are called for from this State. With such patriotism and attachment to the Union, the right must prevail!

This last week has been the pleasantest of the autumn, so far. When you were talking of low streams in October, we had an abundance of rain,

and two or three times the distant hilltops were sprinkled with snow; but the week just ending has been good Indian summer weather, with a thunder shower Wednesday evening. To-night we have South wind and some rain.

I have just got in my beet and turnip crop, which yielded at the rate of 1300 bushels to the acre, which I think will pay very well, and which almost any farmer may do, by proper care and cultivation. Crops were generally good here; corn extra; potatoes rather light, but excellent in quality.

Will you give the name of the town in which the inventor of the new horse rake resides?

W. I. SIMONDS.

*Roxbury, Vt., Nov. 2, 1861.*

REMARKS.—Our correspondent will please accept thanks for the hearty good-will he expresses. With a general feeling like this, we shall attain an unprecedented list. The plan works admirably, so far. Address J. C. Stoddard, Worcester, Mass., to learn more about the horse rake.

*For the New England Farmer.*

#### UNFAIR FAIRS.

Having attended several State, county and town fairs, and exhibitions of the M. C. M. Association and American Institute, in ten different States, during the twelve years past, and moreover possessing somewhat of Yankee inquisitiveness, I have noticed many things in regard to these institutions just as they should be, and some things that I have *guessed* ought not so to be, and heard many others openly affirm were positively *wrong*. But how to remedy the evils, has been a perplexing and unsettled question, in thinking of which I have decided that, on the principle that a continual dropping, even of water, will wear away even a hard stone, it is duty to continue dropping words upon the subject till the evils are worn away.

Being only a home-made mechanic, such words as I can drop, will not, of course, have much weight, or do much in wearing away the objectionable stones; but possibly the attention of others more able may be arrested thereby. I have also attended the "fairs" as an exhibitor of one or more new inventions requiring my constant attention, so that I have not had time, with feeble health also, to perambulate and make observations so much as I might otherwise.

If I do not misunderstand, the primary and chief object of the agricultural and mechanical institutions referred to is, to benefit the country by encouraging and developing its own resources; and anything interfering with this object, I *guess* is wrong. I am aware that some organizations have other important objects, as the M. C. M. Association, its health insurance provisions, &c.; and some have regard to a local benefit within its own boundaries; but what I will now refer to I have noticed as applicable more or less to all.

The award of premiums is expected or designed to be looked upon by the public, and is, to a great extent, as the criterion of merit; but who that is well posted in the matter, does not know that awards are often made regardless of both relative

and actual merit? This is undoubtedly often done honestly by the judges, in consequence of the superior faculty of one exhibitor over another to make the excellences of his article obvious, &c. Various things may operate to warp the judgment of mortals acting as disinterested judges; *e. g.*, the popularity of the inventor or maker of the article; the popularity of the article itself; pecuniary standing of the exhibitor, or his poverty; cheap dress; diffidence; political and religious preferences; moral character, &c. But it is believed by many that awards are often made contrary to the dictates of the judgment. It is hard to be obliged to think so, and in the country I hope the cases are rare; but in cities where there is great competition, in years past, cases were frequent; one man told me that a certain premium cost his firm over \$2000!

Awards are often made, too, regardless of relative merit and importance; *e. g.*, a wealthy merchant or lawyer, keeping but one cow, which brings him a decent sort of a calf, causes it to be fed and nursed, regardless of expense, till it is three years old, when he exhibits it at the State fair, and receives a premium of \$10; nobody claiming that this babied calf will ever be of any material benefit to the town, State or country; a neighbor of his has been "hard at it" daily, and some of the time nightly, for seven years, and perfects and exhibits at the same fair an agricultural implement, the use of which, in the estimation of all intelligent farmers, would give an average benefit to all the farmers in the land of at least \$2 annually, and in the aggregate, millions to the country, and he receives for his genius, patient labor and public benefit, the sum of \$6! A wealthy mechanic succeeds in getting several specimens of nature's best marble, polished in a superior manner, a thing of not the least benefit to any of the whole creation, but the rich, for which he gets a premium of \$15, the highest award in the mechanical department; a poor and feeble man has at the same fair a buggy, combining four separate patents, the result of his own invention, during five years, for which he has received the written recommendations of all who have used it, (several hundred,) as being far superior to all others, practically, and yet lighter and cheaper; and although it was necessary to ride in it, in order to test some of its claimed advantages, and the inventor was at the expense of having a horse ready, yet the judges would not get into it, nor scarcely examine it at all, it evidently being out of their line, and awarded him for the four inventions, a *diploma*!

In connection with this last case, I wish to allude to another thing, I *guess* a little questionable. In making the report, the committee repeatedly wished it to be distinctly understood that they considered the diploma the highest award that the Society gave for any thing! The inventor of the improvements in land conveyance having previously requested if the committee awarded him anything, that it might be in money, after hearing the report, called upon the chairman of the committee, and requested that if the diploma was the highest premium, they would give him a little money instead thereof! He replied that the fact was, he didn't see any great advantage in the patents, and so gave the diploma! I *guess* such consistency would not encourage or develop the

inventive resources within the bounds of any society, very much! The same chairman, in his report, regretted that the mechanical department was *so thin*, and I *guess* his regrets would not be any less another year, for such encouragement to inventors, unless reflected off by large quantities of polished marble.

There are several things in the "fair" line that I am prone to *guess* upon; but I *guess* you will *guess* this is not worth printing; so I *guess* I will wait and see, before I write more; though I *guess*, Mr. Editor, if you had seen and knew as much about it as I *guess* I do, you would get somebody that was better able to do the thing justice.

I had thought to say something about how to remedy the evils alluded to, the crops hereabouts, cement ci-terns, the best horse hamper or poke, canary birds, &c., but I *guess* I won't.

JONATHAN.

#### LUCERNE.

The cultivation of lucerne, as a hay plant, has not yet become popular in this country. In some sections, however, it has long been known, and is highly recommended for its many excellent qualities, being a vigorous grower, hardy, and on suitable soil, a richly-yielding grass. Many who have attempted the cultivation of lucerne, have failed in consequence of not understanding its peculiar habits. In the case of most grasses, we consider the preparation of the surface soil of the greatest moment; but we rarely attempt to ameliorate the subsoil. In the preparation of a field of lucerne, however, it is often necessary to go below the vegetable stratum, and undertake the improvement of the subsoil. Some have asserted, and among the number Von Thaer, we believe, that in the cultivation of lucerne, the lower stratum of the soil is of more consequence than the upper. The plant, as it develops from year to year, sends down its principal root, and still continues so to do, as long as it finds food in its progress, and hence it is essential that the soil, for at least the depth of two or three feet, be of a similar geological and chemical texture. Where different strata occur, overlaying each other short of this depth, it is important that the different ingredients of each be thoroughly mixed together. This can only be effected at great expense, and it is therefore better not to attempt it. There are localities on almost every farm, which are well adapted to the cultivation of this grass, and these may be discerned by examination, and at a very small expense.

On suitable soil, free from excessive humidity, and tolerably warm, lucerne is no doubt susceptible of being made a very profitable crop; but we would caution all against the idea—prevalent in some sections at present, and to the no small detriment, we fear, of the interests of agriculture—that any and all descriptions of soil may be made to produce this crop by the aid of lime.

True, the presence of lime, especially in the substratum, is an indispensable condition to success, yet we might as well assert that Indian corn can be profitably grown on any soil by the assistance of manure.

It is a very long-lived grass, in proof of which we quote the following illustration from the pages of Von Thaer: "On a piece of garden ground, formerly used as a lucerne field, and afterward turned up twice with the spade—and laid down to grass, I have seen isolated lucerne plants grow up which must have been at least thirty years old. A lucerne field may often be kept up fifteen years; seven or eight years is the time usually reckoned. Some cultivators suffer their lucerne to grow for four or five years only, not so much from fear of its perishing or diminishing, as for the sake of turning the soil to greater account by more rapid alternation."

We have seen it stated that some Massachusetts farmer has cultivated this grass for many years on a piece of pine plain land, and finds it not only a vigorous grower, but a grass which makes an excellent food for stock, either green or dry.

If the plant is so long-lived, as is stated by Von Thaer, the cost of preparing the ground is no greater than that of preparing it for the Timothy crop, as that ought to be repeated as often as once in seven or eight years. It is best to sow it in drills just as early as the ground is fit to receive the seed in the spring, and if well tended, it may be cut three or four times during the season, affording an abundant and highly nutritious crop each time. It flourishes in Maine, where the ground is continually covered with snow through the winter; but there may be risk in cultivating in the eastern part of Massachusetts, on account of the earth being bare sometimes for weeks together, when it is very cold. It is a crop well worthy of experiment, especially by those who produce milk for market.

#### ARE BEES DOMESTIC ANIMALS?

A singular point of law was recently submitted to the Imperial Court of Limoges, namely, whether bees are to be ranged in the class of what the law calls "domestic animals," or are to be considered as "wild and ferocious." A laborer named Sauvenet, of Chenailles, proceeded on the 8th of October, 1859, to extract the honey from a bee-hive in the garden of his employer, a tax-gatherer, named Beraud. This irritated the bees, and they flew wildly about. At that moment a farmer named Legrand, of Peripolles, accompanied by his son, a boy of thirteen, came up the road in a gig, and the bees stung them and the horse severely. The animal in terror began prancing furiously, and the farmer and his son jumped out of the vehicle; the boy then ran along the road trying to avoid the bees, but the horse

having started off, knocked him down, and so injured him that he died in a few hours. Legrand afterward brought an action before the Civil Tribunal of Aubusson against Beraud and Sauvenet, to obtain from them 3000 francs as indemnity for the death of his son, which he said must be considered as caused by the bees. But the Tribunal held that bees are "ferocious animals" which no one can be expected to control, and that therefore the action could not be maintained. An appeal was presented to the Imperial Court at Limoges, and after long arguments a contrary decision was come to, the court laying down that bees are "domestic animals," and that the owner of them is responsible for any injury they commit; it therefore ordered that 200 francs should be paid to the plaintiff.

*For the New England Farmer.*

#### IMPROVING PASTURE LANDS.

Read before the Concord Farmers' Club,

BY JACOB B. FARMER.

The subject is one, like all other agricultural topics, that must be met according to circumstances. Every one knows that our bodily wants are varied by location, temperature, and a thousand incidents that cannot be foreseen. So with the improvement of pasture lands, and all other agricultural operations.

Cold, wet lands may be greatly improved by thorough drainage; drainage is not the less important because we wish the land for pasture. Much of our hill lands are too wet to produce good, sweet feed; water grasses and rushes of all kinds are a sure omen of too much surface water; cows that run on such pastures are sure to give milk of an ordinary quality, consequently, butter produced from such milk will be inferior.

You probably wish to know what is to be done with such lands. Were I skilled in this point, I certainly could not give directions without seeing or knowing the land. There is, however, one general rule that will apply to all wet lands, where grass or grain is the product sought; that is, thorough drainage; keep the water at least eighteen inches below the surface, and my word for it, you will not be troubled with "brown shag," knot grass, or any of the rushes.

I have seen low lands greatly improved by plowing twice a year for three years in succession, without taking off a crop, but this, however, was where the land was too far from home to cart manure. I think as great improvement could have been made in less time, had there been oats, clover, millet, or some other crop plowed under whilst green.

There is another class of lands, although high and dry, yet covered with stones, brush and briars, that looks forbidding to the plowman. I have known such lands to be trebled in value in three years, by stocking heavily with sheep, which course I think highly of. There are, however, two or three objections, or obstructions in the way of this mode of improvement, in Middlesex County. One objection is the high price of fencing stuff, or the want of a breed of sheep that will not jump or ramble, which, by-the-by, I have heard are to be found in Essex County. Another is, that faithful, but almost always useless animal,

the dog, whose ravages can be greatly checked by enforcing the laws of our State.

If we can remove the foregoing objections, I know of no way so easy, cheap, and withal so profitable, as to stock our rocky and bushy pastures with sheep. I believe it to be a well authenticated fact, that sheep will eat many more kinds of plants than either the horse or cow, and several varieties the sheep will utterly destroy, that horse nor cow will touch.

There are several other methods of renovating pastures, such as sowing on plaster, salt and lime, either of which are good fertilizers on certain soils. Salt I think the best for killing brush, and, if used freely, will kill nearly all kinds, except the cherry, or stone fruit trees; but I have not experimented enough with either to give any specific directions, although I think them worthy of trial in a small way.

I have, however, used salt for killing elm trees and small bunches of brush in my mowlands, with good success, never having but one elm start, and that soon died. My way is, to cut the tree so as to leave a hollow in the stump, put in from a pint to a quart of salt in each hollow, and the work is done. I will refer for a moment to that class of lands, generally known by the name of pine, or sandy plains they are used as pastures, frequently from one-fourth to three-fourths of the time, and often more, and when used as such they may well be called worn out pastures; many of them have been made so by continuous cropping with rye, without manure. These lands may be greatly improved by the application of meadow mud, or the turning in of green crops.

*For the New England Farmer.*

#### SOILING COWS.

MR. EDITOR:—In the summer of 1860 I attempted to ascertain the amount of extra labor it would take on a common farm to soil, or stall-feed, a small herd of cows; but finding it difficult to separate that labor, every day, from the ordinary labor of the farm, I was obliged to content myself with noting the time occupied on a few days at different seasons, and under differing circumstances, as to the luxuriance of the feed to be cut, and so estimate the average time. I kept eight cows through the summer. In June and July, two and a half hours a day were sufficient for getting the feed to the barn, giving it out to the cows, watering them, and managing the compost heap. In August, three hours a day; and in September, owing to the partial failure of some crops sown for use at that time, it took about four hours. The crops which failed to do as well as was expected, were oats and millet. My favorite crop for the summer feed of milch cows, after several years' experience, and trying a variety, is clover. Like all other plants, this is liable to occasional failure; but if it shows well in the spring, is on good soil, and has been well manured, there is, in my experience, hardly any crop that yields so large a return for the labor bestowed. On the 9th of June, 1860, when the clover had just begun to blossom, the produce of seven and a half rods weighed 1415 pounds. This is at the rate of 30,186 pounds, or a little more than 15 tons to the acre, at the first cutting. My eight cows, (of

about average size,) ate 1200 pounds of that clover in one day. An acre like this would therefore feed one cow 201 days at one cutting. I did not weigh the second cutting, but think the amount taken off, was at least, two-thirds as large as the first, or 20,000 pounds, and the third not less than 15,000 pounds; a total for the whole season of about 65,000 pounds, or 32½ tons of green fodder, of the best quality, from one acre; equal to the feed of one cow for 433 days, allowing, as above, 150 pounds a day.

To ascertain the amount of hay in this fodder, I dried 100 pounds, which then weighed but 17 pounds, showing that it contained, green, 83 per cent. of water, above what remains in what we call dry hay. So each cow ate daily equal to 25½ pounds of hay, mixed with 12½ pounds of water.

Those who have committed blunders are permitted, I believe, to caution others against falling into the same wrong courses. My faith in clover, as expressed above, was so strong at the beginning of the season just past, that, trusting in the fine promise of my fields in the early spring, I neglected to prepare for a sufficiency of other crops to keep up a convenient supply of green fodder for the whole season. The first cutting of clover was good, and the weather such, in the early part of June, as to give good promise for the future; and thinking I had an abundant supply, I cut and hayed some that was beginning to fall down about the middle of June. But immediately after there came on a spell of very warm and dry weather, that so scorched the surface of the ground as to prevent the starting of the expected second growth, or at least so checked it that there was but a very light crop, and consequently I came sadly short of feed, and was obliged to use much grass that was intended for hay, and use it, too, when it had become too ripe to serve the purpose well, the cows looking discontented when it was placed before them. The season's experience has convinced me strongly that it is unsafe to indulge a sanguine faith in a close calculation. It is best to make a liberal allowance against the uncertainties of the weather, for the surplus is always available for hay.

*Concord, October 31, 1861.*

M. P.

#### THE FOOT OF A HORSE.

The human hand has often been taken to illustrate Divine wisdom—and very well. But have you examined your horse's foot? Its parts are somewhat complicated, yet their design is simple and obvious. The hoof is not, as it appears to the careless eye, a mere lump of insensible bone, fastened to the leg by a joint. It is made up of a series of thin layers, or leaves of horn, about five hundred in number, nicely fitted to each other and forming a lining to the foot itself. Then there are many more layers belonging to what is called the coffin bone, and fitted into this. These are elastic. Take a quire of paper, and insert the leaves one by one, into those of another quire, and you will get some idea of the arrangements of the several layers. Now, the weight of the horse rests on as many elastic springs as there are layers in his fore feet—about four thousand; and all this contrived, not only for the easy conveyance of the horse's own body, but whatever burden may be laid upon him.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND--No. 17.  
WARBLERS.

Cerulean Warbler—Black Poll Warbler—Prairie Warbler—Cape May Warbler—Blue Yellow-Backed Warbler.

THE CERULEAN WARBLER, (*Sylvicola cerulea*, Swainson.) is doubtless occasionally met with in New England; but it is exceedingly rare here. It appears to be mostly a Southern species, and in Louisiana, according to Audubon, it is as common as any other *Sylvicola*, where it breeds. "The liveliness of its notes," he observes, "renders it conspicuous in those parts of the skirts of the forests which it frequents; and its song, although neither loud nor of long continuance, is extremely sweet and mellow." Wilson, who appears to have first described it, speaks of it as a scarce bird in Pennsylvania, where it spends the summer, retiring southward about the 20th of August. It is also found sparingly in the Western States. The nest, according to Audubon's interesting account, is partially pensile, placed in low trees or bushes; the eggs are four or five in number, pure white, with reddish spots at the larger end.

The Blue-Green Warbler, (*Sylvia rara*, Wilson,) of Wilson and Audubon, "so resembles the young of the Azure (or Cerulean) Warbler," the latter remarks, "that were not the form of its bill, and some of its habits considerably different, I should be tempted to consider it a mere variety of that bird." Later writers, however, appear to agree in considering it fully identical with the Cerulean Warbler, being merely that bird in its immature state of plumage. It is equally rare in all the northern parts of the United States, and in general possesses similar habits and song.

The Cerulean or Azure Warbler measures four and a half inches in length, and eight in alar extent. The color above is generally a fine, rich blue, with streaks of blackish on the back; beneath white, with dusky blue streaks on the sides and breast; two conspicuous bars of white on the wings, and spots of the same on the tail. The female and young have the colors paler, but otherwise similar, and the blue of the upper parts is tinged with green; in this state it has been described as the *Blue-Green Warbler*.

THE BLACK POLL WARBLER, (*Sylvicola striata*, Swainson.) seldom reaches New England from the South till the latter part of May, when for a week or more it is one of our most common species, and a few generally remain with us till into June. It is known to breed as far south as New Jersey, and throughout the intermediate regions of North America, northward to Greenland, but retires to sub-tropical or tropical regions to pass the winter. Secluded woodlands and dense thickets of brush-wood are its favorite haunts, and in summer appears to be seldom met with in this latitude. Like others of its tribe, it is extremely active, searching for insects among the tree-tops and bushes, or seizing them on the wing; and is generally quite silent and unsuspecting.

Length five and a half inches; alar expanse, eight and a half; whole upper parts of the head and nape deep black; general color above ash, tinged with ochre yellow, and conspicuously streaked with black; lower parts white, streaked on the sides with black. The female is similarly

marked, except in a measure wanting the extensive black patch on the head, but is strongly olivaceous above, and the white beneath is tinged with yellow.

THE PRAIRIE WARBLER (*Sylvicola discolor*, Jardine.) was first discovered by Viellot, and next met with by Wilson, "in that singular tract of country in Kentucky, commonly called the Barrens." Though met with in New England, it is far from common here, and does not appear to be anywhere very numerous, though it is more frequently met with in some sections of the country than in others. New York is the northern limit assigned to it by Baird. The Prairie Warblers, says Wilson, "seem to prefer open plains and thinly-wooded tracts; and have this singularity in their manners, that they are not easily alarmed, and search among the leaves the most leisurely of any of their tribe I have yet met with; seeming to examine every blade of grass and every leaf; uttering at short intervals a feeble *chirr*." Audubon speaks of it as inhabiting Louisiana, where it is one of the earliest birds that arrive in spring, and one of the first to leave in the fall. Its nest, he observes, is small and delicate, and is "sometimes attached to three or four blades of tall grass, or hangs between two small sprigs of a slender twig. At first sight it seems to be formed like that of a Humming Bird, the external parts being composed of delicate grey lichens and other substances, and skins of black caterpillars, and the interior finished with the finest fibres of dried vines." The eggs are four, white, with a few brownish spots at the larger end. Two broods are raised in a season. He further observes: "Its flight is light and short, it making an effort to rise to the height of eight or ten yards, and immediately sinking down to the grass or bushes. Whilst on the ground, where it remains a good deal, it searches among the leaves slowly and carefully, differing in this respect from all the true Warblers with which I am acquainted."

Length, five inches; extent of wings, seven. Above, light olive, with streaks of brownish red on the back; line over the eye, cheeks, and beneath, bright yellow; lares, and a line beneath the eye, black; streaks of the same on the breast and sides; wings barred with pale yellow; broad spots of white on the exterior tail feathers. The female is much paler, and has not the black markings near the eyes.

OF THE CAPE MAY WARBLER (*Sylvicola mara-time*, Jardine; *Dendroica tigrina*, Baird.) but little is known. It is everywhere found to be exceedingly rare, though individuals have been met with over a wide extent of country, as at various points in the eastern parts of the United States, and in Cuba; Audubon considers its highest northern range to be the "Blue Mountains of Vermont." Wilson met with the only individual he ever saw, near Cape May, in New Jersey, and hence the name it bears. This beautiful species is said to be shy and solitary, and almost nothing is known of its history or habits.

The length of this species is five and a half inches; breadth of wing, eight and a half; upper part of the head, deep black; general color of the dorsal aspect, yellow olive, thickly streaked with black; line over the eye, sides of the neck, the throat and breast, a rich yellow, which fades into yellowish white on the belly; the breast and sides

handsomely marked with streaks of black; two bars of white across the wings; spots of white on the inner vanes of the exterior tail feathers.

The BLUE YELLOW-BACKED WARBLER (*Sylvi-cola Americana*, Swain; *Parrula Americana*, Bonap.) is probably found throughout the New England States in the summer, generally arriving early in May, and retiring southward in September. For a short time on its first arrival it frequents the orchards and the shrubbery of the gardens, busily searching for insects that at this time prey upon the tender leaves and blossoms of fruit trees, but spends the summer in the depths of the forest where it rears its young. The tops of the tallest forest trees appear to be its favorite resorts, and it is seldom found hunting the lower thickets. Audubon states that an elevated branch is selected for the support of its nest, which is generally placed so near its extremity and so high above the ground that it is not only difficult to discover, but also to obtain access to. I have not yet been fortunate enough to discover the nest of this beautiful Warbler, though I have often met with the birds in every summer month. It is described by Audubon as being small, "formed of lichens, beautifully arranged on the outside, and lined with the cottony substances found on the edges of different mosses." The eggs, he observes, are four in number, pure white, with a few reddish dots at the greater end. Its song consists of merely a low, lively twitter. This is one of our most interesting and delicately-colored species, but from its retired habits, it is generally known only to the ornithologist.

This species measures four and a half inches in length, and six and a half in alar extent; the upper part of the head and neck, fine Prussian blue; lower back and rump, pale blue; interscapulars glossy brownish yellow; wings black, barred with white; tail black, with the usual white spots; throat and breast rich yellow, changing to a peculiar orange brown on the middle of the latter, edged with rufous; a spot of black towards the throat; belly and vent white. The female generally has all the colors much paler than the male.

J. A. A.

*Springfield, Mass., Nov., 1861.*

*For the New England Farmer.*

#### ENRICH AND BEAUTIFY THE FARMS, AND MAKE HOME PLEASANT.

MR. EDITOR:—Of all places on earth, none is remembered like home. The scenes of childhood leave a strong, an eternal impression on the mind, which not only time, but, we doubt not, the endless ages of eternity will not be able to blot out. Then how important it is that home should be pleasant; that, when the child leaves home, that home will ever stand an ideal of earthly beauty—a second Eden, on the pages of "enduring memory." The more beautiful home is, the stronger will be its magnet which makes it the centre of attraction to the human heart; and the stronger the power of this magnet, the stronger will the teachings and influences received at home impress themselves on the thoughts, and affect the actions of the man in after life. Parents, if you would have your instructions remembered—recollect that the memory of them will always be associat-

ed with the spot where they are received. But, besides this, how much better it is for yourselves, how much more can be enjoyed, to have, as you may—if it be only a wood colored cottage—a pleasant home. Man, it is said, "is made by his surroundings," and it is true to a great extent; they do make a vast difference with man, as is demonstrated by the different appearances of individuals of the same race in different locations. Among the lofty mountains, where the scenery is rugged and grand, the child grows up through youth, and becomes a very different man, physically and mentally, from the child of the level plains below. Nature loves her children. On them she impresses her beauties, and it is in vain that the hand of art tries to rival her; she makes ample provisions, which we may draw from her bounty, for our comfort. She provides us with vegetation, adapted to all climates, and fertilizers for the desert, which we must "make to blossom like the rose," if that is to be our home.

What blessings man receives! Cultivation and artificial fertilization take the place of natural richness of soil, and the vegetation of the climate springs forth with renewed vigor and unrestrained luxuriance and beauty.

But to be more practical; many men will say they are "too poor, they have neither time nor money to spend in embellishing their grounds." This is common everywhere. To all such I would say, you can beautify your surroundings not only without cost, but with profit. Set out fruit trees on your grounds. The best of apple trees of any variety may be obtained for twenty-five cents each. Between, and under these, such fruit as strawberries, currants, raspberries, &c., all of which will pay a good profit in two years—can be grown to advantage, and can be started with a small capital. Let those old walls be laid up a little better, and fix up a frame, and plant grape vines, letting them run over the frame and wall; also plant vines to run over your immovable rocks. In this way, room now lost, will be profitably occupied, as well as beautified. Flowers, too, should not be forgotten, as they cost but little labor and make home attractive. Luxuriant grass and crimson clover, or any other luxuriant vegetation, add much to the looks in their season, but nothing like trees add to the beauty at all times of the year. Nothing like vegetation in its different forms, springing from the earth in all its varied beauty, filled with odors unapproached by those of man's invention, and yielding fruit and food for man and beast; there is nothing, I say, like vegetation, to make the surroundings of home attractive, and increase the value of the farm.

A MONTHLY SUBSCRIBER.

*Franklin, Nov., 1861.*

CARE OF GRINDSTONES.—No grindstone should be exposed to the weather; it injures the wood-work, and the rays of the sun harden the stone, so that, in time, it will become useless; neither should it be allowed to run in water, as the part remaining in it softens and wears away faster than the other side. The water should be dropped or poured on. Greasy or rusty tools should be cleaned before grinding, or they will choke up the grit. Keep the stone under cover. These rules will save the farmer much vexation and expense.



*For the New England Farmer.*

**LETTER FROM THE HOMESTEAD.**

*Chester, N. H., Nov. 4, 1861.*

MY DEAR BROWN:—This good old town, situated on the very top of the ridge between the Atlantic Ocean and the Merrimac River, is one of the best of all places in which to appreciate a north-east storm in November.

On Saturday night the storm reached us here, and I lay awake many hours thinking of our great naval expedition, which I pray may have been early enough to escape the destruction which such a storm must bring upon it.

"The wind blew as 'twad blow its last,  
The rattling showers rose on the blast—  
That night a child might understand  
The de'il had business on his hand."

These long storms usually commence at sea or down along the gulf, and work up the coast, so that we get them about twenty-four or thirty-six hours after they reach Washington. The fleet left Fort Monroe on Tuesday, and must have run very near the storm, but possibly may have escaped it by a day or two. Before this is published the fact will be known, and my speculations would be of no value, except that they may attract attention to the value of science, which will, before many years, have so perfected its observations as to be able to foreknow the weather for several days as accurately as the changes of the moon.

**FRUIT.**

This is one of the best fruit towns in New England, having a hilly surface and a self-drained, stony soil. This year it shares the common lot of New England, and fails of its apple crop. Our orchard, which last year produced 40 or 50 barrels, this year does not yield a bushel. I hear that Mr. William Tenney, who has given great attention to his orchards, has more than one hundred barrels of winter apples, but this is the only exception to the general barrenness that has come to my knowledge. The peaches all failed, too, except in two instances, which are worth noticing, as telling us something about the causes of failure. We have here close by the house, a large spreading tree, which has usually borne full. One branch overhangs a shed, and on the lower limb of that branch, resting on the roof were a few blossoms, which bore fruit, and one single peach remained and ripened. Close by is a small tree, a branch of which touches the ground. On this branch, in August, there were twenty-two peaches, most of which ripened, while there was not a single blossom on any other branches of either tree, though both were green and full of leaves.

The branches which bore fruit were covered with snow most of the winter, so that it is evi-

dent that it was "while knee-deep lay the winter snow" that something killed the fruit buds. I say "something," because it is not perhaps quite certain whether it is the mere intensity of cold, or the sudden variations of temperature, which does the mischief.

Professor Agassiz, in his address before the Norfolk Agricultural Society, stated as the result of his own observation, that the cherry blossoms were destroyed by a single cold day or term, in February last. He said that he examined them before and after the time referred to, with a microscope, which readily discloses the condition of the blossom; that the buds for the next year's crop are formed in August, and that he had already, (in October,) examined the blossom buds and could then clearly discern the little cherries in the bud! I remember once, at your house, we examined some cherry buds in the spring with a microscope, and although we plainly saw what seemed to be the little cherries in twos and threes as they are seen when full grown, I could hardly credit my own eyesight, or the assertion of your good lady who showed me the wonder, that what I saw was the fruit in embryo.

**GREY SQUIRRELS.**

While we are upon natural history, I have a word to say, and an inquiry to make about grey squirrels. The Patent Office Report of 1856 has a treatise on "The Quadrupeds of Illinois," in which the various squirrels figure extensively. The author thinks the grey and black squirrels are varieties of the same species. I cannot say as to this. We have not, in this neighborhood, where I have shot squirrels ever since I was ten years old, any such animal as a black squirrel, though the grey is very abundant. If the individual which sat for the picture of this beautiful little animal in the Patent Office Report, was a veritable grey squirrel, he must have been just singed or dipped into water. The tails of some I have shot, since I came here, measure a foot in length, and looked, when on the run from tree to tree, as large as the whole body of the animal, while this poor animal in the Patent Office Report, sports a caudal appendage about like that of a very old tabby cat.

It is wonderful to see how much a gray squirrel knows. Friday last was a fine day, and taking my gun, I strolled away alone in the afternoon to one of the old haunts of my boyhood, where chestnuts and squirrels used to abound, and set down "among the grand old woods" to see whether the squirrels were up to their old tricks. The trees were half bare of their leaves, which lay dry and crisp over all the ground. At first, all was hushed by my intruding footstep, but as I was soon still and noiseless, first came a blue-jay,

chattering and flaunting her gay feathers, pecking away at the acorns of a large oak, and scattering them upon the dry leaves. Next, a modest chipmunk, after a few chitters, creeps out among the leaves, and stirs them up busily in pursuit of nuts. Then comes a red squirrel, out of a large hemlock, and sits up with his tail over his back, and chatters away at a most frantic rate. Then came up divers distant sounds on the ground, of the dead leaves rustling; one louder than the rest, which takes my attention as if he were the opposing counsel in a law trial. The noise comes nearer; there he is on the ground, a big gray, two gun-shots off, making as much noise as a horse, now running on an old log, then down among the leaves, then on the side of a tree. He is a beautiful creature, but that is nothing to me; my business is to kill him, and if I have not lost my skill, I shall do it. He can hear better than I, so I wait till the wind blows among the dry leaves, to drown the sound, and then I step lightly along from tree to tree, with my gun ready cocked for a shot. The rascal is too sharp for me; there he is, up a tall chestnut, gone out of sight. I take my position between the tree he is on, and the pines at which he will aim, if he runs. The tree is straight and bare, and there is no sign of a squirrel, but I know just as well what he is about, as if he had told me his trick. He is on the body of the tree, forty feet up, with his head up, hugging close with his paws, and just as fast as I go round, he goes round, too, keeping on the opposite side. But those sharp fellows are often too sharp for their own good. I stand behind a large tree, with several stones in my hunting bag. I throw one small one far off on his side of the tree, among the leaves, at which he pops partly round my side, but before I have time to shoot, he is back out of sight. Now I know exactly where he is, and cocking both barrels, I throw two stones in quick succession beyond him, at which he shows himself full size, and gets shot through the vitals, before he knows it. I reload, put my victim in the bag, and walk off to play the same game with another.

Cruel sport it seems to the reader, and so it may be; but just now, my purpose is to illustrate the wonderful instinct of animals, and not the humanity of man.

One fact more for the naturalist, and then the squirrels may be dismissed. It used to be a fact, years ago, when I practiced shooting a great deal, that a large proportion of the male gray squirrels were castrated. It was a fact understood by all the hunters, and the common notion was that the operation was performed by their unnatural fathers. I do not remember seeing this strange fact stated in any treatise, nor did it occur to me how singular it is, until long after I had become

familiar with it. Natural depravity, whether it came from Adam's fall or not, is not limited to man. Animals are full of all manner of wickedness and cruelty. Tom-cats frequently devour their own kittens, with as good a relish as if they were so many rats; and as the poet says, "Dogs delight to bark and bite, for 'tis their nature to;" but this Turkish practice among gray squirrels has a sort of deliberate wickedness about it that finds few parallels in nature.

#### SWAMPS.

I find the best farmers, here, are making constant improvements in low land. Most of the swamps, when decently drained, come into heavy, good grass, without plowing.

Mr. Wilson, who reads the *Farmer* regularly, has a meadow of several acres, which, by draining with stones only two feet deep, and merely sowing the seed, bears between two and three tons of herds-grass and fowl-meadow per acre. Tiles cannot be had without hauling sixteen miles, so that they are not much used. They are so much more durable and so much cheaper in the end, that it is unfortunate that they cannot be obtained at a reasonable rate.

Some gentlemen who own a large part of the North Pond meadows, are deepening the outlet, for the purpose of drainage. A portion of the large tract lying about that pond is composed of a kind of coarse, incipient peat, almost as light, when dried, as a sponge. I have always supposed that soil would require a good deal of science, and some manure, to make it productive. However, I have never known a single instance in which a fresh meadow, properly drained, proved unproductive, under good culture. If the North Pond meadows can be reclaimed and made good land, it will be a valuable addition to the hill farms of Chester.

Truly yours,

H. F. FRENCH.

*For the New England Farmer.*

#### SHEEP CULTURE---RUTA BAGAS.

MR. EDITOR:—In looking over the back numbers of the monthly *Farmer* I find much that is both interesting and profitable.

In the number for March, 1861, page 145, is a report of a discussion on sheep husbandry, at the Sixth Legislative Agricultural Society's meeting, which interested me much, and especially a remark of Mr. Sanford Howard, that mutton can be produced at less cost than beef or pork, and if of proper quality, will command as high, if not a higher price in market, leaving the wool a clear gain. Now, in our region, sheep might and probably would be raised extensively, were it not for dogs; as it is, I know of but two farmers who raise them in town. Our pasture is rather distant from the house, and rather out of the way, so as to be exposed to the depredations of dogs; and I thought of building an ample yard in a

cool place, and feeding them on green food in summer, which, by the way, can be got handy, as we raise considerable clover, and can raise drilled corn and millet, within a few rods of the contemplated yard. I also thought they might get the after feed by tying them out either to a weight or a stake. Would soiling sheep be profitable? Also, what breed are most profitable?

I have a piece of old pasture land, which has not been plowed for twenty years. It is naturally a good soil, mellow and loose, and easy worked. It is flat and no stones or shrubs. If this land is plowed deep with oxen, and turned over bottom up and flat, and then allowed to settle a month, and then cross plowed with a horse, as deep as possible and not turn up turf, and then well harrowed and fertilized, would it not yield ruta bagas?

A SUBSCRIBER TO MONTHLY.

REMARKS.—We have never known the experiment of soiling sheep tried, but judging from what we know of the animal, should think that it could not be made profitable. They like a free and pretty wide range, and are always impatient of restraint. Even in the winter they do not like close confinement, and in clear weather—however cold it may be—prefer the open air to the barn or shed. If confined in any considerable number in the summer to a comparatively small enclosure, it seems to us that they would be annoyed by flies and by their own droppings and exhalations, and gradually lose appetite and become diseased. We cannot tell you what breed would prove most profitable. Perhaps you may determine from the numerous articles we have given on sheep culture.

You can undoubtedly get a good crop of ruta bagas as you suggest.

#### ASCENT OF SAP IN VEGETABLES.

There have been numberless hypotheses devised by vegetable physiologists to explain the phenomena of the ascent and descent of sap in plants; some maintaining that the vegetable, like the animal system, is endowed with sensation, the result of a nervous system, which, they flatter themselves, they have clearly traced in the fibrous and other parts. Grew ascribed the phenomena to the levity of the vital fluid; Malpighi, to an alternate contraction and dilation of what he erroneously considered to be the air vessels; Perreault, to fermentation; Tournefort and Hales, to capillary attraction; and Thompson, to a contractile power in the different sets of vessels so admirably distributed through the vegetable frame.

ACKNOWLEDGMENTS.—Mr. ELY H. GILLET, of Colchester, Vt., will please accept our thanks for his favor of Nov. 6. It is in such a steady patronage as his, and the hearty expression of good-will which he utters, that conductors and editors find encouragement and support.

#### AGRICULTURAL LITERATURE.

TRANSACTIONS OF THE MASSACHUSETTS SOCIETY FOR PROMOTING AGRICULTURE. New Series, Vol. I: Part III.

This volume is another of the timely and valuable publications of the old *Massachusetts Society for Promoting Agriculture*. A large portion of the work is occupied by an *Agricultural and Geological Survey of Essex County*, illustrated by a Map,—by DAVID CHOATE. This essay gives the history of the county, its rivers, ponds and lakes. It then enters upon its geological character, showing where the various rocks are distributed, and where marl and peat alluvium are found. The chapter showing the “effect of geological formations on vegetable products,” is an interesting one. The author says, “it is a well known fact that wheat was once a profitable crop in Massachusetts, and it is believed in this county; and it is equally well known that while a few districts seem still favorable to its growth, yet it cannot be generally raised on our soils.” We think the writer, in this remark, has fallen in with a popular error, which has nearly outlived its day. How this error became popular we are not certain; but think it originated in the practice of sowing wheat on land that had been severely cropt for several preceding years, and which had been pretty thoroughly exhausted of its alkaline properties. We find, every year, excellent fields of wheat in various parts of the State, and hear no complaint that the crop is not as profitable as any of the other grain crops; the evidence, indeed, is in favor of the wheat. Winter wheat flourishes well when sown early in September, and is fast commending itself to our people by its excellence and certainty. It seems to us that the failure to secure a good wheat crop was more the fault of the cultivator, than from any deficiency of proper elements in the soil. Beside the reason we have already suggested,—that of putting it upon land too severely tasked to produce any fair crop, most of the winter wheat was sown too late in autumn to allow the plants to become well rooted and established before the ground was frozen up. In this condition, if the plants remained uncovered by snow during a severely cold period, they were usually what is called “winter-killed,” from this cause, or were thrown out by the heaving of the soil in the early spring, and perished in that way. The same errors affected the crops of spring wheat,—viz.: impoverished soil and late spring sowing. Where these are properly guarded against, the crops of wheat of both kinds are as certain in every part of the State,—as far as our knowledge extended,—as the crops of barley or Indian corn.

We would suggest to our friends who desire to raise a crop of wheat, and who have no ashes to apply to the soil, that they sow ten bushels of

lime to the acre. This can be procured in almost every part of the country at a cheap rate, and will supply elements that may have been exhausted by long-continued cropping, and secure a profitable result.

After devoting several pages to the interesting subject of reclaiming meadows, and touching, as he naturally would, upon the matter of draining, Mr. Choate says :

The query now arises whether changes in society may not some day occur which shall make water power unnecessary? Is not *steam power* already unharnessing the horse and turning him out to pasture? Has it not long since commenced its triumphs on the ice-bound rivers of the New England States, driving the mill-wheels which would otherwise yield to the icy king for four months in the year? Is there not something unnatural in the idea of even a vested right outlasting the need of that right? What becomes of it in case of a milldam where the river has ceased to run at all, as is already in numerous instances the case? Or of what value is that dam to the owner, when other power can be brought in to drive machinery so much cheaper and better than the water is not wanted for any such purpose? A change like this, draining the 13,400 acres of fresh meadow, at present known, because sometimes out of water, and also draining the balance under water, rarely seen, and never measured,—what an addition to the agricultural wealth of Essex county! These meadows now yield 10,000 tons a year. But drainage would probably double the acres, and treble the price. What may be the result of the long controversy respecting flowage on the Concord and other rivers can hardly yet be foreseen, but eventually *the meadows, it is believed, will be drained, and nobody hurt by it.*

Under the head of "changes and improvements in farming," he says the quantity of milk "returned by the officers, in the county," in 1845, was 261,744 quarts; in 1855, it was 1,811,936 quarts; being an excess of over fifteen hundred thousand quarts! This was mainly owing to the rapid increase of population in Gloucester, Lawrence, Newburyport, and other manufacturing places. The number of apple trees in the county, cultivated for their fruit, would give an average of eighty-eight to each farm. The author quotes Mr. C. P. Preston, of Danvers, who says: "In my neighborhood, I think within forty years, but two farmers raised grafted fruit, which they picked by hand, possibly 200 barrels. Others had more or less natural fruit, with possibly two or three grafted trees. *Now*, within the range of a square mile of this, in a bearing season, there are picked some 2500 to 3000 barrels of apples, worth say \$1.50 per barrel."

Mr. Choate has devoted considerable space to the subject of *manure*, under the head of Lime and Ashes, and Sea Sand as a Manure. Then follow remarks upon the Changes effected by the

action of the Sea, and Salt Marshes in connection with such changes, and the effect of location in relation to the sea; Sheep Husbandry; Neat Stock; Raising of Horses; Market Days, and Farms and Farmers.

In most of the closing heads, the important question is asked, "Does the County advance in Agricultural Wealth?" but we are not able to answer it ourselves, or to give the writer's own opinion. It is true that he gives some tables, and shows the increase or decrease in certain crops during a special period, but a conclusion from them can only be arrived at by an investigation that we have not opportunity to make.

We are glad the writer so fully appreciates the importance of our system of collecting the statistics of the people. He says, "when the volume for 1837 appeared in London, Mr. Webster was struck with the effect it had upon English capitalists. Massachusetts *could obtain loans on the strength of that book, when no other State could!*" Mr. De Bow said—"This State (Mass.) is in advance of every other, in the extent and accuracy with which it presses statistical investigations, and is worthy of all praise. Nothing is too minute to escape attention, and many of her citizens are the very first statisticians of America."

A few pages are devoted to geology and agriculture in the common schools, to the subject of meteorology, the county, or Treadwell farm, and to concluding remarks.

Following upon the very heels of these—and as though it formed a part of the Survey itself—is a "*Prize Essay on Farm Management*," by ALEXANDER SIMPSON, a Scotchman, copied from the Journal of Agriculture, and the Transactions of the Highland and Agricultural Society of Scotland.

The next article is entitled "*Agricultural Miscellany*." This, we suppose, was prepared by the Editor of the volume. He says:

"We know no more satisfactory method of measuring our actual progress in agriculture, than by comparing the amount of the principal products per acre of the two periods, half a century ago and at the present time, and also the value of land, as nearly as it can be ascertained, at the same periods. If, upon this comparison, we find an increased agricultural production, and an enhanced value in our farming land, we may safely conclude that we have made a decided progress; if we could show that every acre produced thirty-three per cent. more in food than it did fifty years ago, while the value of the land has increased, during the period which has elapsed, twenty-eight per cent., as is stated to be the case in England,\* we should unhesitatingly assert these facts as conclusive evidence of increased agricultural prosperity. Passing by the system of cultivation, which has varied in no important particulars in

\* The Farmers' Magazine. London. Jan., 1861. p. 61.

Massachusetts, except in the use of better implements, and taking the leading crops of 1807 to 1810, and comparing them with those of 1855, the following are the results.

|                               | 1807.              | 1855.                     |
|-------------------------------|--------------------|---------------------------|
| Average Indian corn per acre, | 31 bushels.        | 23 $\frac{1}{2}$ bushels. |
| “ Wheat “                     | 19 “               | 15 10-13 “                |
| “ Rye “                       | 16 $\frac{1}{2}$ “ | 12 6-14 “                 |
| “ Barley “                    | 22 3-5 “           | 20 “                      |
| “ Oats “                      | 26 $\frac{1}{2}$ “ | 21 $\frac{1}{2}$ “        |
| “ English hay “               | 2381 lbs.          | 1953 lbs.                 |

Throughout the list, a marked decrease in production per acre is exhibited, but in the growth of animal food, the falling off in quantity is still more striking. In 1807, the amount of neat stock to a farm of one hundred acres was about fourteen head; it is now but seven, and sheep, which averaged twelve to a farm, now hardly come up to four. In horses, also, kept for farm work, the number has lessened, though there has been a considerable increase of those kept for other purposes.”

If such is the agricultural condition of our State, it is certainly not very flattering to our intelligence and skill in the arts of husbandry, and ought to spur us on to renewed efforts. We like the views presented as follows by the Editor, in regard to the *profit of Agriculture*, with a single qualification, viz:—he says, “that it is less than in many other departments of industry, may be inferred, since so many relinquish it altogether, or seek more inviting fields for its prosecution.” The point whereby the question is to be decided, is this: Do ten thousand carpenters, store-keepers, or those engaged in any other mechanical pursuit, or as many lawyers, physicians or clergymen, leave more property at their decease, than do ten thousand farmers? Is there a question on the mind of any intelligent man, which would leave the most, where the parties are taken promiscuously? If there is, an examination of any probate records will show, we think, that the value of the farmer will be far ahead.

That there is some profit in agriculture, even as it is practiced in Massachusetts, cannot be denied; for, unless it be so, no one would follow the business; that it is less than in many other departments of industry may be inferred, since so many are willing to relinquish it altogether, or to seek more inviting fields for its prosecution. Probably every one of our readers know of cases where farming has been, and is now profitable, the farmer acquiring a handsome competence, if not great wealth, from the cultivation of the soil. Such instances, however rare they may be, serve to prove the capacity of the land to produce a profit; the more numerous they are, however, the stronger argument they afford of the profitableness of the pursuit, while the same rule does not apply to failures and want of success to prove the converse of the proposition. If a dozen men are engaged in a similar manufacturing or commercial pursuit, and nine out of the twelve fail in it, while the other three succeed, the success of the latter establishes the fact that the business is capable of being made a profitable one, and the failure of the nine only shows that they did not

understand the business. So with agriculture; if two or three farmers in a neighborhood make their business profitable, while all the rest just rub and go, or fail utterly, the same general truth is established that farming can be made profitable, and that when it is not so, that the fault lies with the farmer, and not in the land.

The next article is upon “Drainage,” by Judge FRENCH. It abounds in important facts, is written in his clear, compact, and yet flowing and attractive style, and is a valuable contribution to our agricultural literature.

The work is closed with a list of the officers and trustees of the Society since its organization in 1792.

This volume, like all the publications of the society, is a credit to the State, and, scattered widely and copied into the agricultural journals, will have a decided influence upon our geononics. We wish a similar volume could be published from every county in the State, and hope the “Old Society” will find itself in condition to extend its good works.

Was it the taste of the printer, or the direction of the editor, that the articles should be so crowded together as to make the work appear as though it comprised but a single article? A part of a page left blank, or even more, at the close of the “Survey,” and a “half title” dignifying the entrance of a new subject, would certainly improve the arrangement of the subjects immensely, at least to our eye.

#### ORNAMENTAL TREES.

Around every dwelling, there should be a plantation of ornamental trees, oaks, elms, maples, firs, and, indeed, all the various species of indigenous trees with which Providence has so beneficently blessed our land. Nothing adds more to the beauty and desirableness of a country residence than the presence of these splendid creations; even the humblest cottage derives a sort of elegance from them, and becomes an object of interest by the mere charm of association. Many of our forest trees, of the deciduous kind, are unsurpassed in elegance, and are so easily obtained and propagated as to place them within the reach of every person. The elm is a vigorous and rapid grower; so, also, is the oak, in all its species, the maple and the glossy beech. Of shrubs and evergreens, there are innumerable varieties, all of which bear transplanting, and flourish vigorously on almost every description of soil.

CANDLES.—Prepare your wicks about half the usual size, and wet with spirits of turpentine, put in the sun until dry, then mold or dip your candles. Candles thus made last longer, and give much clearer light. In fact, they are nearly or quite equal to sperm in clearness of light.

A NEW VOLUME AND NEW TERMS.

In our last number, as well as upon the cover of the previous number, we announced an entire change in the terms of the *Farmer*. Without occupying pages of our journal this month with advertising our plans, and puffing our own publication, we wish simply to say that the arrangement we have proposed will be fully carried out.

To our old subscribers we need say nothing of the merits of the *Farmer*. We suppose they read our regular issues, and can form their own judgment of their merits. We can only say that we have spared no pains, and shall continue to use every exertion, to make the *Farmer* the most practical and reliable agricultural publication in the country. We have numerous intelligent correspondents, who write of things they know, and who do not go into speculative arguments on the merits of operations of which they know nothing practically. We are in favor of progress in agricultural science, as well as in any other. We encourage experiments in every new method of cultivation which promises to advance the general prosperity of the farming community, whilst we discourage the universal adoption of any scheme which shall not have been fully tried and proved. We hope our subscribers who have given us their cordial support in past years, will extend to us under our new terms the patronage we shall try to merit. The plan of advance payments will free us from the expenses of agents, and from discouraging losses, and we can give the benefit of these advantages to our subscribers in the reduced price of the *Farmer*.

Our terms for the new year are

|  |  |
|--|--|
| Single copy.....                         | \$1.00 for 1 year; \$1.60 for 2 years. |
| Two to five copies.....                  | 80 cents each.                         |
| Six to ten copies.....                   | 75 " "                                 |
| And an extra copy for every Club of ten. |  |

Old subscribers whose bills for the past year are paid can have the *Farmer* for 80 cents next

year, if they cannot arrange clubs to reduce the price lower than that.

Old subscribers who have not paid their dues, will be charged only 80 cents a year for what they are now owing us, *provided they pay up and subscribe for next year*.

All subscribers are requested to forward their dues, and payments for the next year, *immediately*, as it will greatly facilitate our labors in the preparation of the January number. As we shall *employ no agents* we must depend upon those who are indebted to us to send their dues by mail. If this is not done within a reasonable time, we must adopt such a course for their collection as will secure that result with the least expense to ourselves.

LIQUID MANURE.—Prof. Sprengel, the celebrated German chemist, asserts that each cow produces annually 18,000 pounds urine, which contains of solid matter, 900 pounds. This solid matter is fully equal to the best guano, weight for weight, so that the liquid manure of every cow kept on a farm for one year, is worth, when applied to the crops, more than \$20 annually, and so in proportion to all the rest of the domestic animals. It may be said that in no other department of rural economy does the American farmer lose so much by neglect, as in the management of solid and liquid manures.

TO REMOVE CHAFF FROM ANIMALS' EYES.—Mr. C. E. Todd states, in the *Ohio Farmer*, that he had a valuable cow which became partly blinded with oat chaff, and tried the various remedies commonly prescribed, but to no effect. He then took a silk pocket-handkerchief, drew it tightly over the end of the fore-finger, and after raising the eyelid as much as practicable, thrust the covered finger carefully into the eye. The chaff adhering to the silk was at once removed.

TO CEMENT BROKEN CHINA.—Beat lime into the most impalpable powder; sift it through fine muslin, then tie some into a pocket formed of fine muslin. Put on the edges of the broken china some white of egg; then dust some lime quickly on the same, and unite them exactly.











