The Farm.

CLOVER AS A FERTILIZER.

Not only should we bring to our assistance every available stimulant to vegetable growth, but also at the same time that kind should come first which is the cheapest. A great deal has been written about composting, collecting forest leaves, dissolving bones, and saving rubbish generally, all good in a measure and adding their mite to the enriching of the land but not wholly satisfying the great craving of the soil for food. It is the deduction our leading farmers made from years of experience, that clover is the cheapest manure. A principal item is the cost of applying fertilizers. I set a man at work hauling barnyard manure. He must have a team, wagon and fork. He does a good day's work if he covers an acre. I send a man to the field with a bag of clover seed on his shoulders, and when night comes he has seeded down ten acres or more. He has added more fertility to the soil than is contained in one hundred loads of common barn yard manure. A not very distant farmer says: "I cannot afford to put my straw back on my land," so at five dollars a ton his wheat straw goes to the paper mill and is immediately converted into paper, and he buys clover seed with the money. Of course he can afford to put it back, though the resulting profit would not be near so great as is commonly estimated.--It seems to me better to grow clover seed and keep the straw too.

Clover protects the surface, hence it may be truly called a mulch. A thick mat of clover prevents the escape from the earth of fertilizing properties that would otherwise be wasted. Leave a board on the ground for a few months, and no matter how barren the soil, a profitable amount of fertilizing material will accumulate under the board. Just in this way does the clover plant fetch up barren, worn-out land to a producing state. Possibly as much humus is kept back to the earth in this way as is drawn from the air by the leaves of the plant.—Again. clover mellows the soil. Land having a natural tendency to become pasty, heavy and tough may be converted, with a liberal seeding, into a mellow, friable seed bed, and when we have got a mellow soil we have reduced the expense of cultivation.

Again a heavy coat of clover keeps down many kinds of weeds that would otherwise spring up abundantly. It heads them off, just as a plant shading the ground stops effectualy any growth beneath its leaves. Finally, as fodder it is indispensable. Sheep prefer clover hay to the best of timothy and other fine grasses. Dairymen rank clover high and seed their land accordingly. In fact many farmers here sow nothing else. But then there are acres and acres of land that will not unassisted grow a clover plant two inches high. For such gypsum is the resort, the natural food. We have only to come down with this dust and leave the rest to nature. The common course here is to seed down liberally and top dress with gypsum in the spring, mow once; the next year more top dressing, and either stock lightly or mow again, and then plow under the aftergrowth.—*Carolina Farmer.*

ADVANTAGE OF FARMERS' CLUBS.

In a word, what most every farmer needs, is a thorough knowledge of his profession, and in no pursuit is knowledge more indispensable.

The farmers' club, when properly conducted, is, in every sense, a school for the dissemination of information pertaining to this branch of business, and for the free discussion of all questions and topics which affect the general welfare of its members. Those who have been successful in any particular branch of husbandry, communicate the knowledge which their experience and practice has given them; while in turn, those who have had less experience and more varied knowledge may suggest ideas valuable to all. Aside from the useful information that may be derived to all connected with these clubs, there is a social side, which may indeed be considered as one of the crowning excellences of such organizations. Farmers have less amusements, and fewer opportunities for social recreation than any other class; their isolation from each other is one of the causes of this, and the result is, of course, that while they work harder than any other class, they no doubt enjoy less of the comforts and pleasures of life.—*Green Co., Wisconsin Republican.*

Farmers, we would call your attention to the last clause of this article, so that you can see what others say of us. Let us confute this statement! Try your pens; the advantages are on your side, and if you treat the subject right, you can show that farmers have feelings as well as other persons. We agree with the first portion of the above article, but the last sentence we allow to appear on purpose to try the mettle of some of you, and give you a text for the vindication of your position.—[ED.]

WHAT IS HIGH FARMING?

It is a system of tillage and farm management that is *self-sustaining*, a system that takes nothing but the bare land, the domestic animals, the farm implements and machinery, and cultivates the soil, sustains the family and the animals, pays the annual taxes, defrays the expenses incident to the improvements that must be made on the farms, cancels the annual interest on the money invested in the land, eventually pays for the land, all from the products of the soil cultivated; and after one, two or three decades of years, leaves every acre in a far better state of fertility than the soil was at the beginning. This is high farming. There are untold numbers of quiet, unobtrusive tillers of the soil in many of our States who have commenced precisely as we have indicated, *without one dollar of cash capital*, who have had no revenue whatever besides the natural resources of their cultivated fields, and who have, by hard work and judicious management, sustained their families, paid for their land, erected all their buildings, paid for all their valuable improvements, and at the same time have brought their land up to that state of productiveness by their judicious management, that every acre now yields from two to three tons of hay where only one was originally gathered, and they harvest nearly two bushels—in many instances more than two—of cereal grain, where the product was but one bushel. *That is high farming.* Yet such a system of husbandry is usually sneered at, simply because the proprietor knew how to save his money to defray the expenses of improvements, rather than spend three times more than he made.—*N. Y. Observer.*

FALL MANURING FOR CORN.

The Vermont *Farmer* says that farmers usually have more or less manure in yards at this season of the year, which can be hauled on to the ground now while the surface is hard better than in the spring. We know farmers who scrape the yards in the fall and leave the manure in small heaps during the winter. Others spread it and plough it in so as to gain time. Both these ways are, in our opinion, wrong. If the manure is spread in the fall and allowed to lie upon the surface until near planting time, its juices are carried into the sod by falling rains and melting snow, so that its fertilizing matter is more accessible, the sod is enriched, the growth of the grasses in fall and spring is stimulated, which gives a green crop to plow in, and there is a heavier sod to decay and furnish food for the growing crop. These causes or some of them are very potent in the effect they produce on the crop.

We have no hesitation in saying that twelve loads to the acre, spread the first of October and allowed to lie until planting time before being turned under. are equal in the effect they produce on the corn crop to twenty loads applied and plowed in, the usual way in the spring. We made the discovery by accident ten years ago and have practiced it with unvarying success since.

WHAT FARMERS NEED.

What farmers need would be a long story to tell. The first thing is greater enthusiasm in their profession. Farmers generally place too low an estimate on their calling; they judge of it from its commercial relations alone. Seeing merchants, lawyers, middlemen, getting money rapidly, making fortunes in a single season, they bewail the slow progress to wealth their avocation compels. But is there nothing desirable but money? The æsthetical probabilities of the educated farmer are beyond those of any other profession. Read Irving's sketch of "Rural Life in England," or Whitehead's "Pastoral," and say if any picture the artist ever placed on canvas equals those described by these writers. However the farmer may be placed, or wherever he has in his hands the means to touch here and there the canvas, and make it more beautiful as the years go on, the farmer should possess his fac-simile with an artist's aspirations, and change and beautify it, making it to "bud and blossom as the rose." A group of trees, a single tree, will change the face of the land—raise it sometimes from inanity to an almost speaking intelligence. Who has ever planted a tree and has not felt an interest in its growth beyond that of trees planted by others? If a fruit tree, has he not watched daily the development of the fruit from flower to full-ripened richness? and when, at last, full of the summer's sun and dew and rain, it has fallen to the ground, has he not taken it carefully up, exhibited it to others, and waited many days with a sort of fondness akin to relationship before sacrificing it on the altar of taste? An apple on the bough is more than an apple to him who planted, tended and saw it through infancy, youth and age.

When the farmer considers that he owes more to the farm than that does to him, he will begin to be worthy of it. It teaches *justice.* It will give, but it must also receive, and its giving will be in proportion to its receiving, with this difference—that it takes our crude gifts and changes them into refined, and returns them "things of beauty." It will have us near; will have our care and sympathy. The farm teaches *integrity.* No shams allowed here; what you do must be well done; you must sow good seed; you cannot get figs for thistles. You may cheat yourself, your neighbours, but you cannot deceive the farm. When the farmer learns these things, he is better than money can make him. The farmer needs *perseverance* in a well-considered plan. If a dairyman, let him follow dairying through to its complete triumph. If mixed husbandry is the plan (and it is a good one), then follow that, without that unstableness often witnessed. We see, for instance, that when wool is a paying crop the whole attention will be given to sheep; a reverse comes, and then "pelting" will be the order of the day. Now, when pork is at a low ebb, many farmers are making small provision for a future crop, and the result will be no hogs, or few, for sale when prices are remunerative. The same is true of horses, a large crop and a small demand; and too little attention to breeding such as will pay.—S. B. L., *in Country Gentleman.*

Dairy Department.

X. A. Willard's Address

Delivered at the Dairymens' Convention, held at Ingersoll, 1872.

(*Concluded.*)

Nothing struck me with more force than the care taken by the Cheddar dairymen of Somersetshire to get good cheese. The pastures are well drained and provided with an abundance of good, clear, running water; there are no filthy pools or mud holes; the milking sheds are open on one side, and paved with stone and cement. There is sufficient incline back of the cows to carry off all filth, and after milking all droppings are removed, and the floors and gutters flushed with water, so that everything is clean and sweet for the next milking.

I am convinced that unless the dairymen of America commence at once to pay attention to cleanliness in pastures, not only in regard to slough holes, but the eradication of weeds, providing stock with an abundance of fresh clean water, together with attention to curing cheese, European manufacturers will soon outstrip us in the race for making fine goods.

The factory system is now being established in Europe, our inventions and appliances are eagerly sought after, and every good thing discovered by us is adopted in England, Sweden, Germany, Russia, Holland, and Switzerland.

Now, understanding the cause and its effects, we can apply the remedy. I have no doubt that the terrible disease known under the name of "milk sickness," so prevalent in Indiana and other parts of the West during the hot weather, will be traced to certain species of fungi in the milk derived from bad water or from some vegetable decomposition. These enter the circulation of the animal and poison the milk, and it is not the result of any poisonous plant that the cows eat.

Mr. Willard then went on to urge the necessity of impressing the patrons with the importance of following these rules of cleanliness, of keeping a daily record of the condition of all milk delivered, of imposing a fine and lowering the per centage of profit, to a person who persisted in delivering milk from over-heated cows, or from cows kept upon pastures subject to the abuses already mentioned. The longer this decided course is delayed, the more money is thrown away in wanton, useless waste. He then proceeded to show the electrical influences of a thunderstorm upon milk, recounting some of the experiments on electricity by one of the earliest experimenters, Andrew Cross, a native of Somersetshire. After describing many of the results of Mr. Cross's researches, he went on to say:—

The influence of electrical action is a question entirely new to the dairy public; but it is one concerning which I think some useful suggestions present themselves for our consideration. When the electrical equilibrium is disturbed, or when the state of the atmosphere indicates a preponderance of negative electricity we are made aware of the fact by its depressing influences. At such times it is important to take more than ordinary care in the handling of milk—that it be kept out of harmful odours—that attention be directed to its aeration, and such treatment be given it as shall be inimical to the growth or development of fungi.

And again, the fact that milk may be kept sweet a long time in hot water by electrical action, will offer a very important suggestion to inventors in the preservation of milk, and perhaps in the improvement of cheese at factories.

I have dwelt upon this matter of milk, and the curing of cheese because they are the living vital questions of the day. Dairymen everywhere upon this continent have reason to be alarmed at the introduction of the system into England, with its cheap labour and immense fields of good dairy lands, for the day may come when their goods may be placed in competition with ours in our own market.

After passing a glowing eulogium upon those already in the work of the factory system in America, Mr. Willard traced the chief reason of so much failure in the production of a first-class article to the dead weight of farmers who will not think, farmers who will not act, who hang back and settle themselves down in the old rut, farmers who do not believe in progress, who do not attend these conventions, who whine at low prices, who dump their rotten milk at the factory doors, and grumble because it is not made into gilt-edged cheese.

It is this dead weight—this living corpse—that is this day paralysing our efforts for progress and improvement. I see these men everywhere in my travels, they have rhinoceros hides, they are wrapped up in their own conceit and will not believe, they have no eyes to see, and their ears are too long to hear. Oh! my friends, it is this class which the progressive dairymen of the age are obliged to lift and carry along by main strength. If we could only reach these men—if we could only induce farmers to improve—to make that progress which the age and the cheese-making art now demands—our progress would be almost boundless, and the prosperity of the dairy interest would be beyond peradventure.

The speaker instanced the market price obtained for his butter by Col. George E. Waring, as detailed in the "Ogden Farm Papers" in the *American Agriculturist*, as a convincing proof that a good artecle must and ever will command a high price.

The imports of dairy produce into Great Britain for 11 months ending Nov. 30, 1871, by official returns, amounted to nearly $48,000,000. On the 1st of January, 1872, Normandy butter sold in London at wholesale for 160s. sterling per cwt., while Canadian only fetched from 70s. to 116s., a difference of over a shilling per pound in gold.

Mr. Willard then gave a sketch of the milk condensing system, showing the profits resulting from this business to be as high as an average of a dollar per day upon each cow.

He had been informed that the condensing factories of Massachusetts and New York had recently received an order from China for 11,000,000 pounds of condensed milk.

WINTER BUTTER.

A writer in an exchange tells us of two persons who supplied him with winter butter. The butter of one failed both in quantity and quality on the approach of cold weather, while that of the other kept up to the standard, looking and tasting like May butter. He further states that the superiority of the last mentioned was the result of having rye pasture during the winter. The rye was sowed among the corn in August, and made a good growth early in the fall. The corn being husked in good season, furnished the cows with excellent pasture all winter. A shelter was provided in the field, to be used at pleasure, with but little outlay, and upon the continuance of snow for a few days, bran and meal were fed. Beside the benefit to the cows, the rye prevents a growth of weeds in the fall, and furnishes a quantity of green manure to aid in bringing large crops. This method seems a reasonable one, and we intend to test it the coming autumn.

We extract the above from the *Iowa Homestead,* published in Des Moines,