

# THE SOUTHERN PLANTER.

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—  
*Xenophon.*

Tillage and Pasturage are the two breasts of the  
State.—*Sully.*

FRANK: G. RUFFIN, EDITOR AND PROPRIETOR.

P. D. BERNARD, PUBLISHER.

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From Hunt's Merchant's Magazine.

## THE PROFITS AND WASTES OF AGRICULTURE.

We are indebted to Hon. Geo. S. Boutwell, late Governor of Massachusetts, for the manuscript copy of his address, which was lately delivered before the Housatonic Agricultural Society, on the "Profits and Wastes of Agriculture." It is an able, carefully prepared article, and will be read with interest:

I invite you to notice with me some commonplace facts and practical suggestions touching the profits and wastes of agriculture in Massachusetts. I do this confidently, under the impression that I have the fortune, distinguished though common in this country and rare in most other lands, to address an assembly of practical men. Everything in agriculture that is not practical, is pernicious, or at least useless. There are no good theories whose value cannot be demonstrated by experiments. The farmer whose return is less than his expenditures, whether the deficit shows itself in diminished crops or in exhausted lands, is not a practical man, and does not deserve the professional name he bears.

On the other hand, he who improves his land, but at such an expense as to cause a demand upon his other resources, if he is a man of wealth, or to burden him with a debt if he is not, is of little benefit to the pursuit he has chosen. It is easy in every branch of industry to demonstrate that unusual things may be done, but it cannot be said that such experiments are worthy of imitation until the question of profit is favorably settled. So in agriculture.

Amateurs have their place and real value. They demonstrate the feasibility of new projects, and practical men may sometimes take up these experiments and demonstrate their economy. But the useful, practical farmer, is he who so manages his affairs as to improve his farm, increase his products each year, re-

alize a return sufficient to meet all his expenditures, and then have a balance in hand equal to the interest on his investment. That is to say, he demonstrates that the profession is a paying one, and shows at the same time the process by which it is made so. Such a man is to be numbered among the benefactors of his race. In his hands, the business is an interest; for the majority of farmers desire to so manage their affairs as to realize an adequate support for their families; and, as a whole, this branch of industry ought to show a better result. But, beyond this, there is a public expectation concerning agriculture which cannot be realized unless the business is profitable. If agriculture is indeed hopeless in this respect, then one result awaits it—extinction as a leading pursuit of the people. The profits of agriculture are taken to be small, and so they are; but it is likewise true that the profits of all other branches of business are small also.

Massachusetts is more than two hundred years old; in all her history she has been blessed by an enterprising, industrious population; yet the aggregate accumulation of these two centuries of labor and economy is only six hundred dollars for each person. Three years of non-production would make her poorer than she was the day the May Flower first gave herself to the icy gales of our coast.

There was even then great wealth in Massachusetts, according to the standard of civilization, in unbroken forests and a soil comparatively fertile. This wealth we and our fathers have consumed or so appropriated, that it appears in the valuation of the State. But however this now may be regarded, it is plain that rapid accumulation, as a whole, has not been our fortune thus far; nor has it been the fortune of any American State, if from the aggregate valuation proper deductions are made for the original wealth which civilization has appropriated to its own uses. Moreover, as

new and stronger evidence that the life of a farmer in Massachusetts is without hope.

A State is not advancing when the proportion of native freehold farmers is diminishing. To be sure there may be an appearance of prosperity, but there is always danger that its foundations are unstable. In 1800, 67 per cent. of the laborers of England were employed upon the land; now the proportion is only 27 per cent. In Massachusetts there was a relative loss from 1840 to 1850 of about 15 per cent. We are then presented with two remarkable, and in some aspects inconsistent facts. First, farming is not in Massachusetts a profitable pursuit; and secondly, our farmers possess the share of property to which, upon a basis of numbers, they are entitled. The first fact is generally admitted, and the second is to be explained by the consideration that our agriculturists are more economical than any other part of our population. But if the depression of which we have spoken is unavoidable and permanent, then this interest is without hope in New England, and we must await the conclusion of a process fraught with ruin, not only to agriculture, but to other branches of industry. It is possible, however, that the errors of the past are evidence of a better future; and it is now my purpose to present some facts calculated to show, if they do not prove, that the wastes of agriculture are equal to a fair income upon the one hundred and twenty millions of dollars invested. These facts are drawn from the experience of Massachusetts, but I have no doubt that the experience of all the old States of the Union can furnish similar ones. Yet it is not possible to present every loss resulting from bad management, or indolence, or ignorance, and I hope, therefore, only to make it doubtful whether agriculture is necessarily the most unprofitable of professions, trusting that you may follow the suggestions of the hour, if in your judgment they are worthy of it, with such theories and processes as shall determine the question.

I. FARMERS CULTIVATE TOO MUCH LAND.—This observation is old, for it is so true, and its truth is so apparent, that it must needs be old. For the reason that the manufacturer economizes his power of water or steam, or the trader his capital by diminishing his credits, or the merchant his voyages by increasing the speed of his vessels, the farmer should limit the amount of land in cultivation as far as practicable. It is true to an extent much beyond the common opinion that the cost of a crop per ton or per bushel is diminished as the aggregate per acre is increased. That is to say, a bushel of corn at twenty per acre costs more than a bushel at

eighty. The same observation is true of every product of the land. The agriculture of Massachusetts from 1840 to 1850 was a process of deterioration and exhaustion. It was altogether a retrograde movement, and the lessening crop per acre, year by year, was so serious as to threaten the existence of the interest. It is hoped that the present decennial period will show a better result. In the year 1850 we cultivated 2,133,436 acres, and allowing one acre for twenty bushels of wheat, for fifteen bushels of rye, for sixty of corn, for forty of oats, for one hundred and fifty of potatoes, for thirty of barley, for one and a half tons of hay, for one hundred dollars' worth of orchard products, for two hundred dollars' worth of garden products, and seven acres for the pasturage of every horse, five acres for every ox, four for every cow, two acres each for young cattle, one acre each for sheep, and allowing liberally for other crops and uses, the product of that year ought to have been obtained from 1,772,581 acres, showing a loss of the use of 360,855 acres, equal to about 17 per cent. of the land in cultivation. This loss is obtained upon the aforesaid calculation of crops, but as I shall have occasion to say hereafter, the loss will appear much greater if compared with the returns of 1840, when the actual results exceeded the estimate I have now made.

The first waste to be pointed out is the use of this large quantity of land, which, if allowed to run to wood merely, would yield an annual average of one cord per acre, or 360,000 cords per annum. If this wood be estimated at one dollar and fifty cents per cord, you have an annual loss or waste of \$540,000. In the next place this great quantity of land would be much benefited by allowing it to lie idle, for it is a general rule that nature yields a growth and improves the land at the same time, while what often passes for husbandry leaves the land poorer than it finds it. Now then, let this area of land rest for forty years untouched by the hand of man, and it will yield an aggregate of twenty millions of dollars, while its productive power for the future will be greatly increased.

II. As a consequence of this system, the farmers of Massachusetts fence, plough, sow, and mow six acres, when they ought to fence, plough, sow, and mow but five; and in fine, they extend all their agricultural operations over 17 per cent. more land than is necessary to the result they attain. Here is a manifest loss of labor—a waste where there ought to be the strictest economy. It may not be easy to estimate this waste accurately, but it is plain that it materially diminishes the profits of this branch of industry. We have already esti-

mated the entire cost of our agricultural labor at sixteen and a half millions of dollars. It is moderate to say that one-eighth of this is wasted in the cultivation of 17 per cent. more land than is necessary to the crop; but to avoid any unreasonable calculations, it may be well to put the loss at one-sixteenth, or one million of dollars. Be it remembered that the gross proceeds of agriculture do not exceed twenty millions of dollars, and of this at least one million is wasted in the misapplication of labor. Nor is this all. We shall have occasion to say that this misapplication of labor is followed by a more serious loss in the exhaustion of the land. But what would be said of a manufacturer who should be guilty of wasting one-twentieth of his whole product in the application of his labor? If his labors finally resulted in bankruptcy, would he be entitled to public sympathy? Or would judicious men condemn the business because it failed in such hands? It is a duty to economize labor. Labor is the scareest and dearest commodity in the market, and so it is likely to continue.

III. This waste of labor is followed by a waste of land. When we cultivate more land than we ought for the crop we get, the process of cultivation is necessarily defective and bad. This was the character of our farming through the whole of the last decennial period. As the land under bad cultivation loses heart and strength, more and more is required to meet the demand we make. So then; from 1840 to 1850, we not only cultivated more land than we ought, but we actually consumed it at the rate of many thousand acres a year. The produce of 1840 was much greater than that of 1850, yet we had 2,133,436 acres in cultivation at the latter period, and only 1,875,211 acres at the former. The product of 1840, at the rates before named would have required 2,317,696 acres, while they were really produced from 1,875,211 acres, showing that my estimate of the capacity of our soil under ordinary care was too low. If you take the excess of the crop of 1840 over that of 1850, and according to the rates before named, find the quantity of land necessary to produce that excess, and add that quantity to the acres in cultivation in 1850, and you have 2,507,353 acres, or 632,142 acres more than were cultivated in 1840. These statistics demonstrate two facts—one absolutely and the other approximately. First, that during the last decennial period our lands continually depreciated in productive power; and secondly, that that depreciation was equivalent to the annihilation of 63,000 acres of land a year, or nearly 3 per cent. of the value of the farms of the State, exclusive of buildings and woodland.

In fine, it appears that in 1850 we were cultivating 632,142 acres more than we should have been if the production of 1840 had been sustained; 300,855 acres more than would have been necessary at the rates before assumed; and also that the impoverishing culture from 1840 to 1850 was equal to an annual waste of 63,214 acres, which was apparent in the diminished total product, and in the increased quantity of land in use. This waste may be estimated with considerable accuracy. The farms of the State were valued at \$109,076,377. Two and nine-tenths of 1 per cent., the exact proportion which the annual waste bore to the quantity in cultivation, is \$3,163,145. But if you allow that one-half of the total value of our farms is in woodland and buildings, the depreciation was \$1,581,572 per annum. But whatever may have been the exact depreciation, it is plain that our culture from 1840 to 1850 was an exhausting one—the acres continually increasing and the production diminishing. These facts demonstrate what it is unpleasant to believe, and yet more unpleasant to say, that the farmers of Massachusetts, of that period, could not as a class be called good farmers. Good culture benefits land—bad culture exhausts it.

During the ten years to which our statistics refer, the culture of the State was bad. Land reclaimed from the water and the forest was not used to increase production, but its native fertility was required to supply those crops which our exhausted and abused fields refused to furnish. The process of our agriculture was that of a corporation which uses its capital in dividends, or of a merchant who lives beyond his means, and it tended to the same result—bankruptcy. The idea that cropping land necessarily exhausts it is an erroneous one, and it is, moreover, a reflection upon the Creator, who has provided for the support of his children, and not for their extinction by the exhaustion of the powers of nature.

The good farmer will so manage his acres that their productive power will yearly increase, and this he should do even though his acres in cultivation diminished.

I beg, in concluding this part of my address, to present an aggregate of the wastes to which I have already called your attention:

1st. The annual income from the growth of wood on 360,855 acres of land more than was necessary to the crop of 1850.....	\$540,000
2d. Loss of labor in cultivating this excess of land.....	1,000,000
3d. Loss of land per year by exhausting culture.....	1,581,572
Total.....	\$3,121,572

This waste is equal to two and nine-tenths of 1 per cent. on the value of the farms, and if it had been saved and added to the actual income, that income would have amounted to 5 per cent. a year. Admit that the calculations I have presented are true, and admit, also, what I am sure is not true, that all the wastes have been stated, and all the profits of farming enumerated, and even then the result to which we come is not an unsatisfactory one, for we are to consider that an investment in land which pays for the labor and other expenses bestowed upon it, and yields an annual income of 5 per cent. besides, is as good an investment as can be made. Here is no risk of frauds and bankruptcy, as when you purchase stocks or lend money. It is to be considered that this result has been attained without reference to an improved cultivation, which is to follow the dissemination of scientific and practical knowledge among farmers. The view taken contemplates only that amount of skill which the farmers of Massachusetts are known to possess, and it is my desire further to show that its proper exercise will place them above the evil of low profits.

In farming, three things are necessary: skill, labor, and implements. Proceeding upon the basis that the skill of our farmers is sufficient for the present inquiry, I have next to say that there is as much labor employed upon the farms of Massachusetts as there ought to be when we consider the claims of other branches of industry. The great practical question is to so economize it as to produce the best results.

The skillful farmer makes a judicious selection of his implements, and keeps them in good order. We can no more afford to work with poor tools than the manufacturer can afford to use worn or antiquated machinery.

Among the agencies, if not among the implements employed in agriculture in this region, we are certainly to reckon manures. They are to the farm what water or steam is to the mill. As the want of these, or their excessive cost, ruins the manufacturer, so the want of manure, or its great cost, hurries the farmer to the same end.

The advance made in agricultural knowledge in the last five years, has changed public sentiment on this point, yet it is feared that the remedy has been found in the purchase of expensive manures from abroad, rather than in the prudent husbandry of the resources we have at home. And the conclusion of this address will be devoted to an inquiry into the amount of waste in this respect in Massachusetts.

If it is profitable farming to purchase guano, phosphates, and animal manures from abroad, there is certainly no excuse for neglecting the means which every farmer can command at a small expense. He who neglects his harvest is hardly distinguished from the criminal, yet it is common to neglect the preparation on which the harvest depends.

A waste of manure is a waste of the elements, and renders it impossible for us to add to our crops, or to improve our land. The first thing, then,

to be done, is to economize the manure we have at home, and there may then be hope of general and permanent improvement. It may be better to import manures than to be without them, but of all importations it is the least creditable to the country while the present customs remain. By the census of 1850, it appeared that there were 75,000 barns in the State, and the Secretary of the Board of Agriculture estimates the quantity of manure at five cords each, worth three dollars per cord, making a total of \$1,125,000. If we assume, what appears liberal, that one-fourth of the barns have cellars, it follows that three-fourths of this manure is exposed to atmospheric and other deteriorating influences. Many competent persons estimate the loss from this cause at one-half, but if it is only one-third, we show a waste from the exposure of manure of \$281,250 per annum. Nor is this all. Without a barn-cellar it is impossible to secure the stale, which is nearly equal in value to the solid manure. Stockhardt estimates that of the manure of neat cattle 53 per cent. is solid, and 47 per cent. is stale. Farmers who neglect the latter ought not to be purchasers of foreign manures.

If the calculation of the Secretary is accurate, this waste is three-fourths of 47 per cent. of \$1,125,000, which is \$748,230. Here is then an aggregate waste in the State in the matter of manures of \$1,029,480, which might and ought to be saved. It may be mentioned, incidentally, as the observation of a practical farmer, and its truth has been established by experiments, that gravel, or subsoil, is a much better absorbent than soil which has been cultivated.

There are other losses of manures which amount to as much as that which has been mentioned. It is stated that there are three hundred thousand domestic fowls in the State, and their manure is superior to any except guano, and indeed is hardly inferior to that. Satisfactory experiments, made by competent persons in the counties of Worcester and Middlesex, show that this manure is sufficient for ten thousand acres of corn, and though it may be saved and prepared at very little cost, it is for the most part wasted. A few farmers have built reservoirs for the waste water of their houses, yet much the larger part neglect this means of wealth altogether. I think it safe to say that the farmers of Massachusetts neglect and waste more manure than they use, and the loss of a million of dollars in manure is followed by a loss of much labor, and many millions in the crop.

It is also practicable and economical for many farmers to avail themselves of manures or fertilizers from the shops and mills of the manufacturers. The dirt and waste of woollen factories is found to be a superior manure for potatoes. The liquor and deposit of the rag bleacheries are of inestimable value. They contain lime, soda, and whatever may be extracted from the rags. The value of this composition is apparent, and must be great in most sections of New England. An intelligent manufacturer

and farmer, who has had many years' experience with this fertilizer, writes that when used upon land in the immediate vicinity of the bleachery, its value is equal to the cost of the lime and soda. There are also many other manufactories, from whose ordinary operations wealth, or the means of wealth, may be derived.

I have dwelt thus upon the wastes of agriculture for the purpose of showing that its profits may be materially increased, without the aid of that additional skill which we hope soon to acquire. We have not spoken of what may be done when agricultural science is better developed and more generally understood, but only of what can now be done by those changes in practice which, in the judgment of all good farmers, ought at once to be made. But we should not fix our minds so exclusively upon the profits of agriculture as to neglect the improvement of the landscape and scenery of Massachusetts. When we cultivate only so much land as we can cultivate well, and allow the rest to run to wood, our barren knolls, exhausted plains, and without pasture, will disappear, and the luxuriant meadows, and lawns, and fields, rich with the promise of the harvest, or burdened by its weight, will add to the beauties of hill and mountain, green with the freshness of spring, or variegated by the frosts of autumn. And, gentlemen, indulge me further while I say, that it is not wise nor safe to accept the idea, sometimes suggested, that Massachusetts had better abandon her agriculture as a business, and trust to commerce and manufactures. This we ought never to do. These latter branches are important, even essential, but they should not be the sole pursuits of any people. True prosperity does not rest upon any one branch of industry, and though commerce and manufactures have brought great wealth to Massachusetts, they have not advanced her in those qualities which constitute her true renown more than has agriculture alone. Agriculture, gentlemen, can be made profitable even in Massachusetts. It is so in a limited number of instances, and it can be generally so if the farmers but will it. Let them seize upon the ingenuity and enterprise which distinguish our mechanics and merchants, and they will secure for the leading pursuit of the people the position to which it is entitled. The existence of agriculture in Massachusetts as the support of a large class of people is a question of profit, and it is for the farmers to so determine it, that our youth shall have courage to engage in a profession which promises a larger share of physical, moral, and intellectual health, than any of the other avocations of men.

#### FATTENING TURKEYS, &c.

Much has been published of late in our agricultural journals in relation to the alimentary properties of charcoal. It has been repeatedly asserted, that domestic fowls may be fattened on it without any other food, and that, too, in a shorter time than on the most nutritive grains. I have recently made an experiment, and must say the result surprised

me, as I had always been rather skeptical. Four turkeys were confined in a pen, and fed on meal, boiled potatoes and oats. Four others of the same brood, were also at the same time confined in another pen, and fed daily on the same articles, but with one pint of very finely pulverized charcoal mixed with their meal and potatoes. They had also a plentiful supply of broken charcoal in their pen. The eight were killed on the same day, and there was a difference of one and a half pounds each in favor of the fowls which had been supplied with the charcoal, they being much the fattest, and the meat greatly superior in point of tenderness and flavor.—*Germantown Telegraph.*

For the Southern Planter.

#### MANAGEMENT OF TOBACCO.

*Mr. Editor,*—In looking over the November number of the Southern Planter, my attention was particularly called to an "Essay on the Culture of Tobacco," over the signature of Wm. H. Jones, of Mecklenburg. Being a planter myself, I read it carefully, and think it a good production. By writing this, or saying what I shall, I do not mean or intend to controvert any thing said by him; but as we differ in our management in several particulars, I thought it would not be amiss to give to the readers of the Southern Planter, as a suggestion only, my plan of management upon a few of the important points in the management of a crop of tobacco, in which we differ. He says after the tobacco is cut, "as soon as it can be handled without breaking, it is placed in small parcels, say enough for six or eight sticks, and hung on sticks." My plan is to stack it in round stacks, by setting it up upon the tails, as straight up as I can to make it stand and press it close together, else it will fall about and coddle; but if put up right it will never coddle. I put as much in a stack as is convenient, paying no regard to the particular quantity. In this condition, it may, if you choose, remain for days, if the weather is suitable. My practice, however, is (if I do not want it to yellow some in the stacks) to haul it immediately off to the barn upon an ox cart, placing planks upon the bottom of the wood body, made fast, with all the wood standards out; put a little dry straw or hay upon the planks to make the load slip off when the body is tilted, which will place the load in a pile just where you want it without damage, and as it was put upon the cart. When the cart body is tilted, the oxen are made to draw the cart from under the load. The load is placed on the cart by lapping the tails together, with the stalks out. Secondly, When the tobacco is sufficiently cured for stripping, and it is put in a bulk for that purpose, he says: "Whenever the weather is unfit for out-door work, the tobacco is stripped." I am aware that the progress of the general business upon a farm may be advanced by this course; but whether the interest of the planter is promoted by it, is a matter of some doubt with me, for the following reasons: 1st. It is a difficult matter to keep a bulk in good

condition for stripping in harsh winter weather, unless covered with damp oak leaves from the woods; and even then, we are apt to let it lie in bulk too long. If it is too soft, we let it funk, and if not, it is liable to get too dry and waste much in stripping. My practice is, whenever I put tobacco in a bulk for stripping, to strip it forthwith, straighten and bulk down by lapping the tails, weight heavily, and invariably re-hang in from four to six days, after bulking; if I re-hang *at all*. 2dly. If I purpose not prizing until spring or summer, as it is re-hung it is crowded high up in the house and then let it remain until I wish to order it for the hogshead. When, on a soft time, to prevent its shattering, it is opened for ordering. My conviction is from experience that good tobacco of any class will be reduced in its original value two dollars per hundred by bulking it and letting it remain in bulk to sweeten, then re-hang it to order for prizing. Consequently, tobacco should not under any circumstances, I think, be permitted to lie in bulk but a few days out of prizing order. Hence it is, I think, that the tobacco merchants *mostly* advise the planter against re-hanging. It is clear to my mind that if tobacco is permitted to sweeten in the bulk and then re-hung, the finer properties and the more delicious qualities of it escape in drying in the atmosphere, and can never be regained; whereas, if it does not sweeten until in prizing order, it has all of its originality in it, and is undoubtedly better, and is worth more money. 3dly. In stripping we make two sorts only—good and lugs. When it is struck off of the sticks in prizing order, we then class the different qualities and sizes, and pack and prize separately.

Very respectfully,

Your most obedient servant,

ED. J. THOMPSON.

Albemarle, Nov. 25, 1854.

For the Southern Planter.

#### REMARKABLE SCARCITY OF INSECTIVOROUS BIRDS, REPTILES AND INSECTS, LAST YEAR.

*Mr. Editor*,—This is an age of discovery and progress. How long it may be before the meteoric aeronaut, as he whizzes through the air, to explore the "*incognita terra*" of the poles, shall laugh to scorn the snail pace of the rail car and the steamboat, *no man can tell*. And whether it may not be a provision in the vast, but incomprehensible plans of an all-wise and almighty Providence, ultimately to set his creature men to visiting each other in all the worlds of his apparently trackless and boundless universe, *no man knoweth*. But to descend, perhaps, from "*the sublime to the ridiculous*," there are mysteries in nature so seriously affecting the happiness and interest of man, and yet so infinitesimally small, as to demand all his powers of observation and ratiocination, to explore, to understand and to correct. We know that there are myriads of invisible (to the naked eye) animalculæ that inhabit the earth, sea and air;

and that we eat them in our food, swallow them in our water, and inhale them in our respiration. How far they may serve to produce disease and death among men, in unknown circumstances, or, in the organization and mysterious arrangement of our animal economy, to promote health and sustain life, it is perhaps vain, if not impious, to assume to ascertain or to comprehend. The great plans of Providence are beyond the reach of human scrutiny, and it is perhaps enough

"To know but this, *That thou art good,*  
And that myself *am blind.*"

Yet in this idea I am venturing upon no untrodden ground; for learned medical authors have long since advanced the opinion and sustained it with very plausible and cogent reasons, that urticaria, or nettle rash, and some other cutaneous diseases, are nothing but swarms and settlements of these invisible animalculæ; and as the patient always suffers most at night after retiring to rest, they say his torment is produced by the animation and motion imparted to this horde of undiscoverable persecutors by the warmth of his coverlet, and the consequently confined effluvia of his body. But however true or false this theory may be, as pertaining to the healing art, it seems to me quite a reasonable supposition that most, if not all, of the usual diseases of our vegetable and grain crops, apart from bad cultivation, poor land and unpropitious seasons are produced by the sucking or puncturing operation of worms or insects, many of which may be wholly invisible to the eye of man. If these myriads of unseen and unknown insects are *per se*, beyond the reach of human power, their progenitors of larger size, in the ascending line of gradation, may not be thus exempt from the arts and devices of cunning and destroying man; and a single fly that generates them, and thus becomes the parent of their succession in the descending line, being destroyed, the whole of every successive brood of its progeny is thereby likewise destroyed by (it may be) a single sllip of the finger. But while little or nothing may be done directly in this way, much, nay all, may be accomplished by the discovery of the original parentage of the Hessian fly, the chinch bug, the joint worm, &c. The ancestors or progenitors being once known, their natural destroyers will be known likewise, (for every living creature in this world has his destroyer,) and these latter must be used as the cherished agency of man for the destruction of the former. If their original stock, however, be beyond discovery, their destroyers in some of their gradations may not be, and these should be fostered and allowed to multiply. For instance, the bird, reptile, or insect that feeds upon the tobacco fly or the chinch bug, is the real friend of the planter and the farmer, and should be cherished and protected as such, for every tobacco fly he kills he relieves the planter from the labor of destroying hundreds of worms which else had riddled his crop. But I find myself unwittingly going beyond the design that prompted me to address you this commu-

nication, and commending these hints, *currente calamo*, to the intelligent farmer and the learned naturalist, to whom the abstruse subject appropriately belongs. I proceed to give you some observations I have made during the year 1854, which, with its events pregnant, it may be, even with the fate of empires in the old world, terminated last night as your brazen bell, with its iron tongue, announced the midnight hour. I think I may say, *namine contradicente*, that in this vicinity there were more tobacco worms and chinch bugs than we have had for many years, if ever, before. We had also a fearful scattering of joint worm, which our farmers will be pleased to learn was not the vanguard of an approaching army, destined to forage upon their crops of the present year. Then, as possibly the work of the horde of invisible insects, before alluded to, we had a great deal of *smut*, *rust* and *open shuck*, in the wheat, reducing by "the joint effect and full result of all," the most promising crops, in May, I ever saw, to a general yield of about *one-half* of what was then universally expected. Now, the observation I made, and which, with deference and diffidence, I submit to the inquisitive and reflecting portion of the community, is, that we had scarcely any hornets or yellow jackets—very few martins, or bats, or woodpeckers, or sapsuckers, and no swallows, and almost a total absence of snakes. I shall not venture to draw any inference or state any conclusion from the *extraordinary absence* of these birds, reptiles and stinging flies, but as they are all known to subsist mainly on insects and worms, I desire to know whether the multitude of tobacco worms, chinch bugs and joint worms, I have mentioned, may not have owed their existence, in some degree, to the absence of these enemies of themselves or their progenitors? I presume not to *give*, but hope to *receive*, information upon this interesting subject.

Very cordially yours,

ALPHA.

Powhatan, Jan. 1, 1855.

P. S.—I might have added another *uncommon fact* to the list—that we had scarcely any *swarms* of honey bees, and a remarkable paucity of humble bees. A very worthy gentleman, more than seventy years old, a large bee raiser all his life, told me he had no swarm at all; another had one; another, one, and a second attempt to swarm, but they returned to the hive. These were all the swarms I could hear of. When I was a boy I was fond of fighting the hornets, the yellow jackets, and the humble bees, and was often vanquished by them; and retaining my invincible spirit of hostility to them, I have been quite observant of their habitations ever since. Never a year passed before, that I did not see them, more or less. But during the year 1854, I saw not a hornet's, a yellow jacket's, or an humble bee's nest. This was so remarkable as to attract my observation, and upon speaking of it, I found others concurred with me.

Take it all for what it is worth, and believe me to be, my dear sir,

Very truly your friend,

A.

For the Southern Planter.

PERUVIAN GUANO FOR TOBACCO PLANT BEDS.

On the first of last April, fearing from the very unpromising appearance of the beds I had sown, that there would be a deficiency of plants, I determined on using guano in preparing other beds, hoping thereby to raise plants for a stand in due season. On reflecting as to the best mode of applying it, serious difficulties presented themselves. I had learned, through communications in the agricultural journals, that guano produced little benefit on beds burnt in the usual way, save as a top dressing to the plants when well up, and was even then hazardous; I therefore resolved on a plan which I had not seen advised. The subject of the first experiment was a piece of gray land on a hillside extending to the edge of a branch, and having a south-eastern exposure. This land had produced one crop of corn and one of oats since cleared, and had been broken for corn in February. The size of the land was fourteen yards by eight, to which Peruvian guano was applied at the rate of 500 lbs. to the acre and immediately turned in to the depth of five inches with a one-horse plough. The surface was chopped and raked until *perfectly fine*. The bed was now covered to the depth of twenty inches with dry corn-stalks, which were fired on *every side* at the *same time*—the object being to have a hot fire of *short duration*. My motive for burning with corn-stalks was to destroy the grass seed near the surface, but not to heat the earth to a depth sufficient to impair the activity of the guano. The stubble of the stalks was picked off after the fire had subsided, and much care taken not to disturb the surface of the bed. When sufficiently cool, the seed were sown, trod and covered in the usual way. The plants were up plentifully in a few days, (the weather being favorable,) grew off vigorously, and by the 22d of May eight thousand plants were set out and lived well. During the same month about eight thousand more were drawn, and in the last of the first week in June I gave a neighbor ten thousand out of the same bed, of full size—making some twenty-six thousand plants that were drawn from a bed ten yards long by eight wide, having purposely omitted to burn four yards of the fourteen, that I might observe the difference. The portion of the bed not burnt produced no plants worth drawing; they *started well* but were overrun by grass and weeds. Two other beds on rich alluvial bottom, treated as above, save as to burning, though promising well at first, were soon smothered with weeds, and utterly worthless. They might have been hand weeded, but finding my beds prepared in the usual way much better than was anticipated, and having no use for them, I gave them up. It may not be out of place to mention that a four foot bed in a patch prepared in February, which had been neglected to be sown, was *thinly covered* with guano, say about 600 lbs. to the acre, and sown the first of May. The plants were of good size to set by the 15th of June.

The ashes on the bed had, no doubt, been so much leached by rains as to destroy their causticity, and hence did not act unfavorably on the guano.

If the results obtained in the first experiment herein detailed can be secured with anything like uniformity a great amount of labor may be saved in the preparation of plant beds, and though it may, for the present, be most prudent to pursue the usual course of *hard burning*, yet in the event of a failure of the beds thus prepared, the planter may, by adopting the above suggestions, not find his misfortune (always a serious one) without remedy. The labor required is perfectly *insignificant*, and the expense of guano so small, in comparison with the promised benefit, as to be unworthy of consideration. It may be asked, can confidence be placed in the results of a single experiment? This question can be answered only after a more enlarged experience. It is my intention to prepare several beds, as in the first experiment, the success of which I will communicate to the Planter. Perhaps I have not laid stress enough on having the beds *well prepared before burning*, and on not *disturbing the surface in the least* after the fire has gone down. Sow the seed on the corn-stalk ashes and tread in and cover with brush.

With best wishes for the success of the Planter,  
I am yours, respectfully,

WM. T. MACLIN.

Hicksford, Greensville, Jan. 21, 1855.

For the Southern Planter.

#### MCCORMICK'S REAPING AND MOWING MACHINE.

The above reaping machine has been used in different parts of Virginia for the past twelve years, but for the last two or three years they have mostly been laid aside. Mr. McCormick, as well as all to whom he sold patent rights in this State, made them entirely too slight and flimsy to be used by black laborers, especially while such a prejudice existed against them amongst all the laboring classes. McCormick introduced his machine into the North-western States about ten years ago, and he has now in successful operation amongst the farmers of that great wheat country seven thousand machines. But experience and his ingenuity together has enabled him to place in the hands of the farmer, at a comparatively moderate cost, the most durable and reliable reaper yet offered to the public. The *raker* and *driver* now ride upon the machine, which is every way enlarged and strengthened. And it is so arranged as to cut any kind of grain, grass or clover, as close to the ground, or as far above it as desired. In short, it can be used whenever a cradle or mowing scythe can be. The sickle-cutting principle is the only one that can be relied on when there is any dampness about the roots of the wheat or grass, and if there should be any clover or grass in the wheat, all other principles I have seen used will gum up along the edges until it requires

the horses to trot or gallop to enable it to cut; in fact, they generally have to trot to cut well; and when we have as hot and dry a harvest as the last was, many have to cease cutting or lose their horses. Some did lose horses last harvest, and others were afraid to work them. But with the sickle-cutting principle, the horses may move as slowly as you please, and the work will be as well done as any one can desire it; and at the gait of an ordinary plough team, it is warranted to cut one acre and a half per hour, of wheat, or one acre of grass, or no sale. There are many farmers in Virginia, and especially in the lower part of the Valley, where heavy crops are grown that pay from \$150 to \$200 for harvesting their wheat, in addition to the regular force, when a McCormick reaper and mower at \$160, as now constructed, would cut, *harvest* after *harvest*, more wheat than five of the best of cradlers; and when tangled or lodged, as much as ten, or perhaps more, could; and will save it much cleaner and nicer every way than any instrument whatever. There are several other reapers that are quite valuable, and do very nice work, when all things are every way favorable for them. I expect in the future to cut all wheat, rye, oats and grass or clover that I may grow, with one reaper and one cradle to open the way and cut over rocks, brakes, &c. My crop consists of two hundred acres of small grain, besides oats and grass. I think it is as much to our interest, now labor is so high, to use the reaper and mower generally, as it is to the farmers in those States before mentioned. With such a machine the farmer has the entire management of his harvest in his own hands, and is very much relieved of his painful reliance on inferior harvest hirelings. He can drive if he chooses and see every binder as he passes round and round, which is a simple and easy task, if the stones have been piled or taken off, and in the month of March a stake five feet in height, tightly driven in the ground by the side of every stump, both small and large, and by all tight rocks projecting over five inches above the surface.

A VALLEY SUBSCRIBER.

January 15, 1855.

#### THE HOP TRADE IN WISCONSIN.

The cultivation of hops for home consumption and Eastern market is becoming, or rather has become, an extensive and important branch of agricultural industry in this portion of the State. It is an article easily grown, exhausts the soil far less than many other crops, commands good prices and a ready sale. Last Tuesday no fewer than fifty bales of closely packed hops passed through this city on their way to Milwaukee, to be sent to New York City. Joseph E. Spaulding raised 4600 lbs. of this quantity on two acres of ground, in the town of Oak Grove, Dodge county. Last year he informs us he raised 1849 lbs. on one single acre. The remainder of the lot spoken of above, was raised by Messrs. Powers & Fletcher, of Maysville, in the same county. They had 3000 lbs. and took them all from an acre and a half of land. At the



figures at which this lot of over four tons is sold, producing hops must be a very profitable business, holding out strong inducements to engage in their cultivation. They require comparatively but little time or labor, and will be found a safe, paying and reliable crop, as well as a valuable addition to our domestic exports.—*Watertown Democrat*.

From the Working Farmer.

### LIME.

In our former articles on this subject, we thought we had exhausted it, but the following remarks by Professor Way, delivered before the Royal Society of England, are novel and evidently true:

"A weekly Council was then held, when Professor Way delivered before the members a lecture on the results of a nine months' investigation into the conditions under which lime affects the absorptive power of soils in reference to ammonia. These results were numerically represented in a small table, containing only four vertical columns, intersected by as many horizontal spaces; but would prove, as Prof. Way remarked, of permanent value, worth all the time and labor bestowed upon their production, if they should be found to lead to the establishment of any new principle in agriculture. His lecture was chiefly occupied in the discussion of these results, and of the clue they might possibly give to the explanations of the mode in which lime acted upon soils as a manure. The two principal facts ascertained by these experiments appeared to be the following:

"1. That all clay soils, more or less, even beyond the depth of twenty feet, are found to possess a certain quantity of ammonia, derived, as Professor Way supposes, from the fishy and vegetable matter of beds of lakes or rivers, no bed of clay whatever, he thought, being entirely free from ammonia.

"2. That the addition of lime to a soil set free one-half the ammonia it contained; thus acting, in the first instance, as a 'stimulant' to vegetation, but as an exhauster of the stock of ammonia already in the soil or to be slowly derived from the atmosphere, if applied in large quantities. The two principal recommendations were:

"1. That liming should take place periodically at short intervals; not more than eight to ten bushels per acre being used every year, or every two years; lime would, under such circumstances, he thought, be found to be one of the most useful adjuncts of the farm.

"2. That lime when slaked and mixed with water, forming what was known as 'milk of lime,' should be added to tank-water, and distributed by means of piping, as in the case of

Mr. Mechi's operations at Tiptree, or Mr. Kennedy's at Myre Mili. Professor Way, in the course of this lecture, entered into most interesting details connected with the chemical machinery of the double silicates in the soil, by which the action of lime was regulated; and with the experiment he had instituted for showing in strong comparative contrasts, the results he had obtained. He also pointed out the great importance of giving to land, by means of suitable cultivation, that condition under which it would best act as an absorbent of ammonia from the atmosphere. He has drawn up a complete statement of these details, which will be submitted in due course to the members, in the pages of the Society's Journal. Colonel Challoner, Mr. Woodward, Dr. Calvert, Sir John Johnstone, Mr. Beale Brown, Lord Berners, Mr. Fisher Hobbs, Mr. Payne, and Sir Matthew Ridley, favored the Council with results of their own experience in the use of lime of different kinds, and on various soils. These results depended much on the nature of the lime itself, on the mode and time of its application, and the condition of the land to which it was applied. The Chairman remarked that the great value of discussions on questions of that kind was the production of evidence indicating results diametrically opposite to each other, obtained under the same management, and the great value it proved of the establishment of sound general principles in agricultural practice, by means of which exactly the same results might be expected to recur when repeated under exactly the same circumstances."

### GUANO AND SUPERPHOSPHATE FOR CORN.

The American Agriculturist publishes, from an anonymous correspondent, the results of an experiment with artificial fertilizers on corn. The soil was a gravelly loam, sward, and ploughed about the 20th of May. The quantity of land allotted to each experiment is not stated. This is to be regretted. The fertilizers and crop are calculated to the acre.

The unmanured plot yielded 28 bushels per acre; that dressed with 16 loads stable manure, 35½ bushels; 500 lbs. superphosphate of lime, 46 bushels; 690 lbs. guano, 50½ bushels; 300 lbs. of superphosphate of lime and 640 lbs. guano, 58 bushels; 320 lbs. of guano and 640 lbs. of dissolved bones, (bones decomposed by sulphuric acid,) 51 bushels; 1010 lbs. guano and 400 lbs. of superphosphate, 74¾ bushels; 16 tons stable manure and 640 lbs. of superphosphate, 49½ bushels.

The effect of an application of a good superphosphate of lime on Indian corn, is what we

have long desired to see, as much for scientific as for practical reasons.

The above experiments lead us to hope that superphosphate, at a reasonable price, would prove a profitable fertilizer for corn in the New England States, where it generally sells for at least one dollar per bushel. Thus the retail price of a first class superphosphate in England is \$30 per ton. Five hundred pounds of superphosphate in the above experiment give an increase of 18 bushels. We should get, therefore, an extra bushel of corn for 42 cents. We must not, however, allow ourselves to deduce too much from the result of a single experiment. The cost of the superphosphate here, however, is \$50 per ton, and the 18 extra bushels cost \$12 50, or 70 cents per bushel. The 690 lbs. of guano give an increase of 22½ bushels. At \$50 per ton, therefore, 77 cents' worth of guano gives an extra bushel of corn. The experimenter thinks that this will pay. Of course it depends on the price of corn.

Assuming that the experiments are correct it becomes an interesting inquiry as to what particular ingredients of the manures the increase of corn is due. The superphosphate of lime used contained say two per cent. of ammonia and eighteen per cent. soluble phosphate of lime. The guano, if a good article, contained 16 per cent. of ammonia and 25 per cent. of phosphate of lime, a considerable portion of which would be soluble. Now in the above experiment the superphosphate gives as much increase as the guano, or, in other words, two per cent. of ammonia and a certain quantity of phosphate of lime give as much increase as sixteen per cent. of ammonia and a certain quantity of phosphate of lime. It follows, therefore, that the increase must be attributed principally to the phosphate of lime. Oh, for accurate experiments to determine whether this is so or not. Why cannot some friend of scientific agriculture apply sulphate of ammonia on one acre of corn, and *pure* superphosphate of lime on another, sulphate of lime on another, and a mixture of the three in definite proportions on others, and determine the matter?—*Rural New Yorker.*

#### A HARD CEMENT FOR SEAMS.

A very excellent cement for seams in the roofs of houses, or for any other exposed places, is made with white lead, dry white sand, and as much oil as will make it into the consistency of putty. This cement gets as hard as any stone in the course of a few weeks. The lead forms a kind of flux with the sand; it is excellent for filling up cracks in exposed parts of

brick buildings; it is also a good cement for pointing up the base of chimneys, where they project through the roofs of shingled houses. We have made this cement and tried it, and speak about it from experience only, for we have no knowledge of its ever having been described before.—*Germantown Telegraph.*

From the Rural New Yorker.

#### COBS OR NO COBS, THAT IS THE QUESTION.

That corn cobs contain a considerable amount of nutritive matter cannot be doubted. According to Dr. Salisbury, 1000 lbs. of ears of corn contain about 200 lbs. of cobs, and these 200 lbs. of cobs contain of woody fibre 127½ lbs.; of matter separated from the woody fibre by a weak solution of potash, 45½ lbs.; of sugar and extract, 13½ lbs.; of protein compounds, 9½ lbs.; of gum, resin, &c. 4 lbs. The *sugar and extracts and protein compounds* are the principal substances of value. Animals would probably be able to digest and assimilate the greater portion of the fibre soluble in potash water. The large amount of insoluble woody fibre is doubtless of no nutritive value. On the whole, we should judge on theoretical grounds, that corn cobs are capable of affording to the animal *about as much nutritive matter as the same amount of good wheat straw.*

We do not know whether scientific or practical men first suggested the use of corn cobs as food. We suspect, however, as in most other cases, practice took the initiative, and science afterwards shouted "all right, go-a-head." Be this as it may, cobs at the present day are quite extensively used as food, the method of preparing them being simply to grind corn and cob together in the ear. This saves the labor and expense of shelling the corn, and avoids all waste. Some of the best farmers of our acquaintance—men who fatten from fifty to one hundred bees every year—are in the habit of feeding out all their corn in this way, feeling quite satisfied that this is much more economical than using clear corn meal. On the other hand, there are as equally good and experienced farmers who think the nourishment in the cobs is not worth the money it costs to grind them.

Let us make an estimate. In this city the charge for grinding a bushel of corn ears is four cents; for a bushel of shelled corn, five cents. Two bushels of ears, weighing, say 80 pounds, are equal to a bushel of shelled corn, weighing 60 lbs., and 20 lbs. of cobs. Say, too, that it costs one cent to shell a bushel of corn. We pay, therefore, for shelling and

grinding 60 lbs. of corn, six cents, and for grinding 60 lbs. of corn and 20 lbs. of cobs, eight cents; or, in other words, we pay two cents for grinding 20 lbs. of cobs. We get a ton of ground corn cobs, therefore, for *two dollars*. Some will object to our estimate of one cent a bushel for shelling. Leaving the cost of shelling altogether out of the question we still get a ton of ground cobs for three dollars. This year, with hay, straw and all cattle foods exceedingly scarce and high, it will certainly, we think, be more profitable to grind corn in the ear than to shell it before grinding. We should be glad of the experience of our correspondents on this subject.

From the Albany Cultivator.

#### HOW TO BUILD A GOOD FENCE.

My farm consists of 130 acres. I bought it three years ago, from one of our old Canadian farmers. It was a model farm, under his management, for burrs, Canada thistles, June grass, foxtail, and all other matters and things of this sort, as well as for bad fences—there were not good rails enough on the whole place, to make fifty rods of good fence. The old man and his neighbors' cattle had many a contest, to know which should hold possession.

After coming into possession, my first effort was to get a good outside fence. This I soon accomplished by building something over a mile of common board fence. This was constructed in the usual way. But next, I needed cross fences, for the farm was all in one field, and I designed laying it out in eight acre lots. I found, on a short calculation, that in accomplishing this, I had to build over three miles of fence; and to get a good fence at the least cost, was what I wished. My neighbors could not learn me much in reference to the matter, either by example or precept, so I had to figure it out.

My first operation was to purchase three hundred saw logs in the woods. These were drawn to a saw-mill with my own teams in the winter. Next I bought about one thousand cedar posts, and cut and drew home nearly another thousand. The lumber was partly drawn by my own teams, and partly by others. As soon as the spring opened I commenced operations. This I did by squaring off my intended fields, and putting in stakes on the lines of the fences. This done, my ploughman commenced his part, by throwing three furrows to each hand, leaving as large a space in finishing, or between them, as convenient. He then altered his clevis, and went down with another furrow as deep as he could run the plough—returning

in the same furrow to throw up the loose earth. I found that he got down full fifteen inches. Two men now commenced sinking holes eight feet apart and one foot deep in this furrow, or ditch. In soft clay or loam, they dug eighty-six holes in about three-fourths of a day. As soon as the holes were dug we commenced putting in the posts. This is a simple operation, but it is best done, I think, by first setting every tenth or twelfth post in line, and then using two good strong cords stretched from these to guide the man in setting the rest.

I do not think that it is of any use to pack the earth hard round the posts. In fact I believe it does harm. As soon as the posts are set, we strike a line on the posts, two feet three inches above the natural level of the ground; the bottom board, about twelve inches wide, is now nailed on, its upper edge even with the line. The plough is again called into requisition, using, however, only one horse. The earth that had been thrown from the line of the fence, is now turned back. This is done by throwing in three furrows on each side, and throwing these up again. Two more boards, six inches wide, are now nailed on—the first with an opening of six inches, and the second eight inches. The nails used thus far, are common two and a half inch cuts, but in nailing on the battens, which I do on each post, we use four inch nails, putting one through each fence board.

The next operation and last, as far as the fence is concerned, is to set two men to finishing the banking. This is a quick and simple operation—one goes ahead and throws up the loose earth out of the ditch; the second clears out the ditch, and finishes the bank. Timothy seed is at once sown on very thick, and the bank is slightly lamp'd down with the back of the shovel. Two men will easily finish the banking of forty rods in a day.

Such a fence when finished, will cost here less than forty-five cents per rod. It will be five feet high from bottom of ditch—it cannot be jumped by any common animal—it occupies with me five feet of land—it is easily built, a large share of this digging and banking being done by horses, and all the rest is performed by common farm laborers—it is quickly built—the posts never heave, even in softish or wettish soils—the water cannot freeze round them, and they will last longer than posts set in the common way.

WORTH KNOWING.—Boil three or four onions in a pint of water; then with a gilding brush do over your glasses and frames, and the flies will not light on the articles washed. This may be used without apprehension, as it will not do the least injury to the frames.

## WIRE FENCES.

We have received the following article in regard to a kind of wire fence manufactured at Lowell. We have heard it highly recommended by several persons who have tried it, among whom we may mention R. S. Fay, Esq. of Lynn. We shall probably furnish, before long, a cut, with a description and prices of the various kinds.—*Boston Cultivator*.

“Some months since, a remarkable machine was invented by John Nesmith, Esq. of Lowell, for the purpose of weaving wire fences. This invention has been patented; and much of this novel, durable, cheap and beautiful fencing has actually been manufactured and sold by the Lowell Wire Fence Company. This invention is particularly opportune. The cost of our fences is a grievous tax upon our labor; Burnap estimates it at twenty times the aggregate of all our specie. The common materials for fencing are daily becoming less and less available. Our forests are steadily receding before the tide of civilization, like the red men who were once their inhabitants. In Texas, as we are informed by an extensive ‘lumber-king,’ rough cypress boards are seventy dollars per thousand; and in many States, as well as in Texas, the cost of properly fencing a farm is two or three times as great as the first cost of the farm itself. Nor can the place of wood, as a material for fencing, be supplied by stone; for in many of our States there is no stone at all. Nor can live fences, or hedges, succeed wood and stone in America, as it has done in some parts of Europe. Our soil, our climate, our physical geography, all preclude this. Hedges have been found to be wholly impracticable for farm fencing. A distinguished agricultural writer once remarked to the writer of this article, that in all his travels, east, west, south and north, he had seen but *one good live fence*, and that was protected on one side by a board fence, and on the other by a rail fence.

“The agricultural mind of the country has long been conscious that a complete revolution in our mode of fences must eventually supervene; and the agricultural and mechanical journals, the orators of our State and County Fairs, and especially the New York Society of Agricultural Debates, have given decided and repeated expression to this consciousness, and to the conviction that some invention would be made by which *wire* could be rendered available for strong, elegant, economic fencing. *This is that invention*, so long the great desideratum of agriculturists.

“Different machines, constructed on the same principle, have been made, adapted for the ma-

nufacture of this wire-netting, of all sizes of wire, of all widths, and of various sizes of mesh; so that netting of all descriptions, from window-netting to farm-fence-netting, may be produced with equal perfection and facility. The fencing is furnished in neat and portable rolls, at from seventy-five cents to two dollars per rod, and can be procured and put up by any ordinary farmer. No rails whatever are necessary, though a top rail has in one or two instances been introduced. The fencing is fastened by nails, brads, iron or wire staples, to posts, set ten, twelve or fifteen feet apart; the upper edge of the fencing being kept on a level from point to point, without regard to the evenness of the land. In some instances galvanized wire is used, for greater security against rust; in others, the fencing has been painted; but generally asphaltum varnish has been applied, giving to the fencing a beautiful black color, and preserving it from decay.

“The strength of this fencing is such that no ox can pass it, while its closeness renders it an admirable barrier to hens and chickens. Those who have tried it as a cattle-fence, as a sheep-fence, and as a chicken or hen-coop-fence, all pronounce it the best, in point of strength, durability, closeness, beauty and economy, in the world. It has also been successfully introduced in lieu of bed-cords in bedsteads, and for trellises for vines. Requiring little and infrequent repair, it is calculated to last a century or more. Offering no resistance to the wind, it can ‘live’ through the most furious hurricanes, while hedges, stone-fences and wooden fences are destroyed around it. Other fences occupy from two to four feet throughout their extent; this covers not a single inch. Others shut out the genial rays of the sun; this does not. No wire fence has yet been produced, which was not injuriously affected, i. e. alternately expanded and contracted by changes in the temperature of the atmosphere; this, by being loosely attached to the posts, and more especially by the peculiar manner in which it is knit together, admits of these changes of temperature, without being injured thereby. Adapted thus admirably for cattle-fences, sheep-fences, chicken-fences, garden-fences, ornamental-fences, road-fences, for trellises, and the rest, this netting will, of course; occasion a great revolution in the agricultural world—a revolution not second to any witnessed during the last half century.

“The agricultural and scientific press have applauded it; men of theory have attested its praise; practical men have tried it, and set to it the seal of their unanimous approbation; nor can any man question its ultimate success.”

From DeBow's Review.

#### CONGRESSIONAL LEGISLATION UPON GUANO.

Since the discovery of this valuable fertilizer the farming and planting interests have been anxiously awaiting some change in the manner of supply, that would be the means of lowering the price and bringing the article within reach of every class of consumers. Memorials have been sent to Congress from the most respectable conventions, asking for special negotiation with the government of Peru, which holds and enjoys this monopoly of the article. Reports and resolutions have been introduced into that body upon the subject, and investigations have been set on foot to find other depositories of the article among the islands of the Gulf, or the Pacific coast. Invention has been tasked to manufacture substitutes possessing like qualities, and of more economical application. All, however, has been vain, and Peruvian guano continues to appreciate rather than decline in price, whilst its consumption is largely increasing. It is an important question for the agricultural interests, if this state of things must continue.

At the last session of Congress the following bill was introduced, which laid over for the want of time:

"A BILL regulating, in part, the trade between the United States, and the Republic of Peru.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That from and after the first day of July, Anno Domini eighteen hundred and fifty-five, the Peruvian (Chincha Island) guano shall be exempt from duty when the market price in the ports of the United States into which it is imported shall not exceed forty dollars per ton of two thousand two hundred and forty pounds.

"§ 2. *And be it further enacted,* That from and after the same period there shall be levied, collected and paid, on the said guano imported into the United States, duties at the following rates, ad valorem, that is to say: four per cent. when the market price is more than forty and less than forty-seven dollars per ton; ten per cent. when more than forty-seven and less than fifty dollars per ton; and sixty per cent. when the price is equal to or exceeds fifty dollars per ton. And that the Secretary of the Treasury be required to adopt such rules and regulations as may be necessary to carry out the provisions of this act."

Although the principles of the bill are somewhat at variance with our revenue policy, the mode of discrimination which it introduces cannot be considered improper in view of the immense interests which are affected; or unjust, when it is remembered that Peru, by her monopoly, exacts a rate of compensation in the way of a tax which is equal to thirty per cent. of the cost of the article. The only question is, will the policy avail in reducing this tax, or will it only tend to increase the cost of guano

by adding to it an import duty? Certain it is that Peru would be unwilling to yield at first, and, thereupon, that embarrassment would be caused to the agricultural interests, as well as to that country, in the diminished demand for the article. In such a contest the victory would belong to whoever should be able to hold out the most pertinaciously. Considering, however, the partial substitutes that may be adopted, and the present feeling existing among farmers, and, at the same time, taking into view the fact that governments everywhere find use very nearly for all of the means that they can command, and are not disposed to forego with patience the enjoyment of any portion of these means, it is not improbable that Peru will be willing to admit of more favorable terms than at present. At least the experiment is worth the trial.

We have been furnished a pamphlet prepared at the Peruvian legation in Washington in answer to the action of Congress, containing an elaborate expose of the subject, with corroborative documents.

We think it fair to give a few extracts from this pamphlet and will refer again to the subject:

"It is an error to suppose that this price of \$17 realized by the Peruvian government on each ton would enable the farmer in the United States to obtain it at a less price than \$50, which he now pays, if the exportation for this country was made on private account, as will be very briefly shown. But, meanwhile, this price of \$50 per ton is not equal to the intrinsic value of the ammonia, phosphate of lime, and other substances which enter into the composition of natural guano, which would cost more than \$60 per ton to the manufacturer of artificial guano, without taking into account the labor of manipulation, and other expenses which enter into the manufacture of artificial guano. It therefore results, that the country producing the article, possessing the advantage of having no competitor, that may increase its price to a point at which it can meet no competition from the producers of other fertilizing agents or manufacturers of artificial manures, renounces this advantage in favor of the consumer, establishing throughout the world a price relatively equal and proportioned to the consumer by its actual system of supply, and guaranty of the purity of the article, well worthy of consideration, and which could not be obtained under a system of free traffic and without the intervention of well-accredited and responsible consignees."

"In regard to the first error, the current prices in the London market give a more favorable result than the guano market in this country, being almost constantly above \$50 per ton, and this fact leads to the conclusion that the American market is really the most privileged, when we take into consideration that during the last few months freights have been taken at higher prices in many cases than what is paid on cargoes destined for England; and on that account the Peruvian government has derived less profit on the balance of importations into this country."

"We will confine ourselves solely to a statement of what has been the conduct of the government since a market was first established in this country by the efforts of those agents, combined with the intrinsic advantages offered by this fertilizer. The price which had been fixed since 1851, was \$46 per ton of 2240 pounds. There were sold in 1852, 25,300 tons; that, at \$46, amounted to the sum of \$1,162,800. We will now see what proportion of this sum contributed to the advantage of the people of the United States, what was received by the government of Peru, and what by the agents:

The freights were on an average \$17 per ton	\$430,100
Extra compensation paid to captains of guano ships for unloading, average 20 cents	5,000
Three hundred and eighty thousand bags, at 16 cents	60,800
Inspection and weighing, at 40 cents per ton	10,120
Filling and sewing up 380,000 bags	3,800
Storage on an average of four months	60,800
Insurance against fire for same period	2,325
Laborage, drayage and delivery	9,500
Proportions of general average paid on various vessels	27,960
Interest for 6 months on freight, at 6 per cent.	12,903
Interest on expenses 8 months, at 6 per cent.	7,214

Total of disbursements in favor of the United States	\$630,582
To the consignees for commissions, guarantee and compensation for advances	75,582
Total amount received by the government of Peru	456,636

Total product of the sales..... \$1,162,800

"*Senor Minister*,—The commissioners appointed by the supreme government to estimate the amount of guano on the Chincha Islands, have performed that duty, and have now the honor of submitting an account of their labors.

"Having organized at those islands the commissioners divided themselves into two sections; the first, directed by *Senor Faraguet*, was occupied with the Northern islands, and his investigations gave for result the quantity of 4,189,477 Peruvian tons, according to the statement made by that gentleman of his operations. The second were jointly occupied with the other islands. The middle island was found to contain the estimated quantity of 2,505,948 tons.

"The Southern island, the only one remaining unworked, after the most minute investigations, was found to contain 5,680,675 tons.

"Adding together the contents of guano on the three islands, makes the sum total of 12,376,100 Peruvian tons.

"We hasten to lay before you this result, accompanied with drawings of the said islands, for your information; and it only remains for us to render a detailed report of our proceedings in the matter, which will be shortly done, evincing the zeal with which we have performed the delicate trust confided to us. We have also to report that we know of the existence of large deposits of guano in the Bay of Independence, on the continent; and although we have not made a survey thereof, yet it may be estimated, taken in connection with the deposits of Ancon, Lobos, and others, that this valuable product may be regarded as inexhaustible for a great number of years."

#### PRATT'S DITCH DIGGER.

Mr. R. C. Pratt, of Canandaigua, New York, patented in July, 1853, a machine for digging ditches, which proved one of the best things exhibited at the late State Fair. By its aid one man and two horses have frequently dug 150 rods of ditch three feet deep in one day, and from 50 to 150 (according to the nature of the soil) is considered a day's work. The machine consists substantially of a scoop and revolving wheel—the scoop scraping and the wheel carrying up the dirt until at a sufficient height it is tumbled out upon the sides, at a little distance from the ditch. Several repetitions of the operation are required before the ditch is sunk to sufficient depth.

The specimen exhibited at the late Fair was all wrought iron, and weighed between 700 and 800 pounds. The diameter of the main wheel was five feet, and the breadth of the diggers or lifters fixed thereon, and that of the scoop or curved channel in which they rise, is about nine inches. Although the lifting apparatus is thus narrow, it is practicable, and indeed desirable, to make the small ploughs or cutters which pare the side cuts somewhat wider, so that a ditch of any width, from nine to fifteen inches, may be excavated by the same machine.

The weight of the dirt which is being lifted, the curved channel, and in fact of the whole machine, rests on the diggers, which, like the floats of a paddle-wheel, project from the periphery of the main wheel. As the machine is drawn forward by the horses, the diggers are successively forced into the earth, and compel the wheel to rotate—thus carrying up and discharging from the top all the earth caught by the scoop, which is in immediate contact behind. On the extreme rear of the whole is adjusted two cutters or small ploughs, which pare the sides and tear the earth to a suitable distance below, ready for the next passage of the machine, so that after the first passage the diggers are always pressed down into the ground already loosened, to a depth of from two to ten inches, which loosening may be supposed to regulate the depth to which they will be likely to sink. The wheel and its accompaniments being of considerable weight, great muscular exertion would be required of the attendant to prevent its falling on one side, but for a simple and very effectual provision for its support. The stout iron shaft on which the main wheel freely revolves, is prolonged some two or three feet on each side and provided with a light carrying wheel mounted loose, as in a common carriage axle, to run upon the ground. These wheels are to maintain the upright position of the machine; but the weight must, at

all times, when in operation, be allowed to rest on the diggers. In short, the main wheel and the whole machine must be allowed to sink down into a ditch or rise to the surface, while the carrying wheels simply run lightly on the surface at the sides. This end is accomplished by bending the axle into the form of a large crank at each side and releasing it from all connection with the machine, except that of passing loosely through the centre. A catch is provided by which the attendant (who is supposed to be grasping a pair of handles in the rear) may make the connection a fixed one at pleasure, and when desiring to leave the field and travel the road the weight may, by this means, be thrown entirely upon the carrying wheels.—*New York Tribune.*





## THE SOUTHERN PLANTER.


RICHMOND, FEBRUARY, 1855.


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
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
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
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FRANCIS N. WATKINS, of Farmville, is the agent for the Southern Planter for Prince Edward.

JOHN E. SEWARD, of Lancaster, is agent for Middlesex, Essex, King & Queen, Richmond, Westmorland, Northumberland and Lancaster.

B. W. TALLEY is agent for the county of Hanover.

We earnestly beg all subscribers within the respective bounds of these agents to pay up at once.

### NEWLY INVENTED WHEAT REAPER AND MOWER.

We are happy to be able to add another Virginian to the list of inventors, in the person of R. J. Morrison, Esq. of Richmond, who is connected with the department of Natural Science in the Southern Female Institute of this city.

Whether Mr. Morrison's invention is to prove superior to all others, we, with our limited knowledge of mechanical principles and decided deficiency in mechanical skill, cannot tell. All we say is that we have seen the working model of it submitted to several practical persons, one maker of reapers, and several practical farmers who have used reapers, and they were all satisfied that it would work well.

A still more substantial testimony to its excellence is to be found in the fact, that Mr. Morrison has been offered, we learn, ten thousand dollars for his patent right.

We expect to be enabled to present our readers with a cut of this machine in our next number. For the present, therefore, we must content ourselves with the following outline description of its construction and mode of operation:

1. The power is applied directly in the line of resistance. There is less machinery through which velocity is imparted to the cutting system than in any reaper in use. There are but two cog-wheels in it, and in case of accident from use or abuse, an ordinary farm blacksmith can repair the injury. The machine has been constructed with an especial reference to this advantage.

2. On the axle of the crank there is a fly-wheel, which by regulating the action of the machinery virtually dispenses with the necessity for any surplus power.

3. The driver in his seat can raise the knives two feet from the ground, and thus readily pass over water furrows. He can by this means, also, cut the wheat at any distance from the ground he pleases.

4. The blades are fixed, and put in separately. A light sheath of iron with dull teeth plays to and fro over these, and by their motion causes the grain to be cut by the fixed blades. The wear of the machinery is greatly reduced by this arrangement.

5. When the blade is made to vibrate the stalks of wheat impinging against the knives before they pass the stationary fingers are found to dull them unnecessarily. By vibrating the fingers across stationary knives their edges are protected, because the stalks do not reach them until they are in the proper position to be cut.

6. The discharger, invented by Dr. E. A. Morrison of Brunswick, Virginia, consists of a wide band, which by means of a well arranged lateral door delivers the wheat in bundles.

Any other or lengthier description than the above would now be out of place, and would not conduce near so well to a full understanding of the details of the machine as the engraving, which, as we have before said, we hope to have ready for the next number, and which has been delayed in preparation until the patent could be secured, as it now is.

Meanwhile the model of the machine has been deposited at the office of the Virginia State Agricultural Society, where it may be inspected by the curious, and will well repay the trouble.

We ought to mention, in justice to Mr. Morrison's ingenuity and perseverance, that he had previously invented another reaper, the blades operating on the principle of a circular saw, and had had a model prepared for exhibition at the late Fair of the Society, when he found, on making application at the Patent Office, that previously such an implement, similar, even in the minutest details, had been invented and patented in England in July last. Nothing daunted by this disappointment he immediately set to work, and thinks he has now a better implement than his first invention would have been.

We know Mr. Morrison well, much better than we ever shall know his machine, and can say this for him, that whatever he says about his reaper or any thing else, he believes to be true, and that all persons inclined to make inquiries of him may rely on his candor and sincerity.

#### DE BOW'S REVIEW FOR JANUARY

Is before us, and we make three selections from its editorial head in this number of the Planter. Now, that Mr. De Bow has enlarged his paper and added to it an agricultural department—of which the present number contains a very favorable specimen—there is less reason than ever for farmers refusing to sustain it. Statistics are as important to them as to the merchant, the politician, and the professional man, and such a statistical work as this should receive encouragement from that quarter to which it is devoted. From our extended limits, diverse pursuits and sparse population, there is less acquaintance among the people of different States of the South than at the North, and of course less sympa-

thy, less knowledge of one another's views and interests and wishes, and less chance of concert than in the hiring States. But for this we think there would have been, long ago, sufficient unanimity among us on the slavery question to have insured the extinguishment of that torch, and sufficient combination among us to have resisted the pillage to which we have been subjected by the legislation of Congress from its first session to the present time. The great merit of this review is that it aims to bring about that better acquaintance by developing and displaying the resources of each State.

#### ORANGE WATER MELON SEED.

We have to acknowledge the receipt of a small package of the above seed from Chas. A. Peabody, Esq. of Columbus, Georgia, Horticultural Editor of *The Soil of the South*. "When ripe," says Mr. Peabody, "the skin peels as readily from the pulp as does the skin from an orange. It is not only a great curiosity, but the most luscious melon I have ever met with."

It will doubtless be remembered by many of our readers that Mr. Peabody is the gentleman who has brought the cranberry culture to such perfection that he has the fruit in perfection nearly every month in the year, and that in other ways he has contributed greatly to the horticulture of the South. With the assistance of Mr. Chambers, the Agricultural Editor, he has made "*The Soil of the South*" one of the most valuable agricultural journals of its section.

#### SEEDS FROM THE PATENT OFFICE.

We are much obliged to Mr. Mason, the Commissioner of Patents, for numerous specimens of garden and field crop seeds, most of which we have distributed. We have a very few left still on hand, which will be freely distributed among early applicants.

#### FRUIT TREES AND FRUIT CULTURE.

After an article from our friend, Mr. Jones, which we found in another paper, had been put in press, we received the following communication from him. As the subject is one of great interest, and proper to be treated just now, we give place to his communication, and commend it to our readers as that of a man who has studied his subject in books as well as in the field, and knows what he is writing about.

In addition to the nurserymen he has named we would mention, in no spirit of detraction from his list, however, the name of E. G. Egging of Richmond, who adds to his profession of nurseryman



that of a landscape gardener and florist. He may be remembered in this latter capacity by the splendid floral ornament which he presented at the first Fair of the Virginia State Agricultural Society. Our friends Guest and Morton, too, should not be omitted from the list. And we can say, in reference to all of them, that their commodities are decidedly cheaper than similar articles at the North.

—  
*Brownburg, Jan. 22, 1855.*

F. G. RUFFIN, Esq.

Dear Sir,—You will find enclosed my annual contribution to the Southern Planter, which paper has been a welcome visitor at my house for the past fourteen years, and it affords me pleasure to add, no year has closed finding me indebted to its editor.

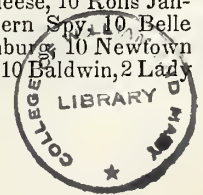
The article in the January number signed R. T. H. reminds me of my promise, made in your office in Richmond in November last, on fruit and fruit culture. I regret that your correspondent did not give us his signature in full. I think there is a false delicacy with many persons on this subject. One who writes for the press should never be ashamed to let the world know where he hails from.

I differ with your correspondent when he says our orchard products are inconsiderable. I admit that the sales from our orchards do not compare favorably with the States of Illinois, Indiana, Ohio, Maine, New Hampshire, Vermont, Massachusetts, New Jersey, Pennsylvania and New York. Most of our fruit is consumed at home, and not marketed. It is said the Yankees eat what they cannot sell, but the Virginians sell what they cannot eat. Now my dear sir, there is in this instance, again, a false pride with the people of our good Old Dominion, and with the people generally of the South. Too many of us think it is a small business to sell fruit, fowls, eggs, &c. This is all wrong. There is no discredit in selling any thing that a man makes or acquires honestly. Take care of the little things, the large ones will take care of themselves. I know that many of us live fast, and too many beyond their incomes; but the end will come, and the result will sooner or later be shown.

The prudent manager will so order his affairs as always to meet his engagements promptly. The lust of money-making should not be allowed to swallow up all the finer feelings of the heart and cut off all the amenities of society. Yet true wisdom teaches that we should always so circumscribe our wants as to live within our income. Gentlemen of wealth have it in their power to do much good, and I love the liberal soul, who blessed with a profusion of this world's goods, can scatter with a profuse hand any surplus which it may have pleased an all bountiful Creator to place under his stewardship. Churches may be built, school-houses erected, public roads improved, canals dug, rail roads projected, the poor fed and clothed, the whole public benefited. This is indeed true riches. And blessed is that community where such men

dwel. But I am wandering from my subject. I sat down to write about fruit and fruit culture

In the first place I will remark that there is scarcely a plantation that has not more or less fruit trees on it. Much of it poor, with occasionally some good seedling varieties, of the first quality. Within the last twenty years many persons have set out select fruit trees from the nurseries near Richmond, owned by Drumwright, Joseph Sinton & Sons, Joseph Rennie and James Via, and of late years an extensive nursery near Fredericksburg, by Henry R. Robey, and in Rockbridge, near Fairfield, and at Staunton, near the rail road, by Mr. Davis. There are also nurseries near Lynchburg. At all these places trees of select fruit may be had, and the gentlemen owning the trees may be relied on. Those gentlemen have all printed catalogues, embracing hundreds of varieties of apples, pears, plums, peaches, cherries, apricots, figs, nectarines, almonds, grapes, gooseberries, currants, raspberries, &c. Messrs. Jos. Rennie and Henry R. Robey have select greenhouse plants, hardy evergreens, ornamental trees and shrubs, vines and creepers, roses, &c. &c. Catalogues will be forwarded by each proprietor of the nurseries, from which selections can be made. The prices of trees are fair, and cheaper than they can be bought *North*, and the fruit is better adapted to our climate and soil. I have near fifty varieties of apples now growing in my orchard, mostly from the nursery of Joseph Sinton & Sons. Thirty-three varieties of this fruit I exhibited in Richmond at our last State Agricultural Fair, which fruit took the premium. Much of this fruit was very fine, with some little that was poor. This orchard was planted in 1834 and 1835, and is now in its prime. Some of the trees are one foot in diameter, and where the ground is rich the trees nearly meet. They are planted thirty-three feet apart each way. The holes were dug four feet square and eighteen inches deep—the subsoil thrown away—the hole was then half filled with virgin soil or well rotted chip manure—the trees set in a very little deeper than they stood in the nursery—each tree well secured to a stake, and the orchard regularly worked and manured for ten years. Since that time it is occasionally worked, and I usually fatten twenty-five or thirty hogs in it. They root about the trees and destroy the worms; and when I have a full crop of apples it takes much less corn to fatten my pork, which is always nice. I never keep my porkers over one winter; the average is 160 to 200 lbs. In selecting fruit for marketing purposes, the late varieties are best, unless you live near large market towns, and it is best not to have too many varieties. Take from the catalogue three or four varieties ripening in succession, say July, August and September, and if you plant one hundred trees let the balance not exceed six or eight kinds. For early sorts 3 Summer Rose, 3 Juneating, 3 Maiden's Blush, 3 Summer Cheese, 3 Summer Queen, 3 Fall Cheese, 10 Rolls Janets, 10 Winesap, 10 Northern Spy, 10 Belle Flower, 10 Cooper's Spitzenburg, 10 Newtown Pippin, 10 Albemarle Pippin, 10 Baldwin, 2 Lady



Apple. There are many other fine varieties of apples, some of which I will name: the Seek-no-Further, Rambo, (very fine fall apple,) Winter Cheese, Nonpareil, Royal Russett, Limber Twigs, (will keep a year,) Gloucester Permain, Father Abraham, Gravenstein, Hange Apple, (fine cooking variety,) Swarr Apple, Male Curle, Sweet Paradise, Dutch Megnone and Big Hill.

My trees commenced bearing the third year after being set out. I trimmed them every spring, kept the head well balanced, and cut off all limbs that would cross and rub each other. In setting your young trees let the earth be a little lower at the tree than around it, so as to hold the water from running off.

I will name a few varieties of choice peach fruit: Lemon, (soft and cling,) Heath, Pompone Peach, Royal George, Lagrange, Crawford's Late Malacot, Large Washington, Malta, White Imperial, Early York, Large White, (clingstone.)

I could extend this article, but it is already too long. Curtail, correct, or do with it what you think best.

Yours, in haste,

HENRY B. JONES.

#### REMEDY FOR GRAPE VINES CASTING THEIR FRUIT.

The following communication was written by a very particular friend of ours, at our request, in reply to some questions as to grape culture, proposed by Major Charles Yancey, of Buckingham. Thinking that it might be useful to others, also, as containing the practice of a very successful vine grower, we have concluded to give it to the public without our friend's sanction, and, therefore, but for that reason only, suppress his name.

Albemarle, Jan. 10, 1855.

F. G. RUFFIN, Esq.

Dear Sir,—Yours of the 6th would have received (as requested) a more prompt reply, but I was unable, until to day, to find the number of the Planter (August, 1853,) containing Major Yancey's communication. In looking over it I find I was mistaken in the information wanted, and that it was much more difficult to give than I expected. I must have had some other piece in my mind when conversing with you upon the subject.

• Casting the fruit is a common disease of the vine, universal, I believe, wherever it is cultivated, and produced by so many different causes, that without an intimate knowledge of all the conditions and circumstances attending it, it is exceedingly difficult to suggest a preventive.

Some of the most usual causes are, a retentive subsoil; an over rich soil inducing too rapid and vigorous growth; and also improper or unskillful pruning. These can be overcome by proper management. There are other causes, that no management, however skillful, can obviate, such as too much rain or excessive drought.

In the case under consideration, it having occurred several years in succession, I would suggest a thorough working in the fall or early winter with the coulter, the subsequent cultivation during the spring and summer to be with a light, one-horse cultivator, continued until the middle of July or first of August, as often as there was any show of grass or weeds, working between the vines with the hoe, and making no hill around the vine, but on the contrary, keeping the ground perfectly level.

The pruning of the native varieties should not be too close, and should be done in November, or during some warm, open spell in February. It should not be put off until the sap begins to flow freely. On vines several years old I would leave from eight to ten buds on each branch turned out for fruit, taking care to turn out buds enough to give bearing wood for the next year's fruit. The Catawba, the variety I am best acquainted with, is much disposed to run to vine. My practice to prevent that is to sucker freely, particularly in the early part of the season. This should never be done after the first of June. The same object may be accomplished by rubbing off the buds, but it is more labor, as there are three germs to each bud and the work has to be repeated.

Woodpile or very well rotted farm-pen manure is the best dressing I have ever tried. It should be applied broadcast after the coulturing and mingled with the soil during the subsequent cultivation.

With the best management there will be the most mortifying failures. Those engaged in the cultivation of the grape for the purpose of wine making consider themselves fortunate if they get a good crop once in three or four years.

I believe I have given you the most important points in my own management. Hoping it may be of some service to your friend Major Yancey,

I am very truly yours, &c.

BETA.

We do not know that we can account for the facts to which our friend and correspondent calls attention below; but we observe one difference that may help to explain, in part, the superiority of the land ploughed with the Hillside plough. That plough, Mr. Thompson states, mostly edged the land or furrow slices. In so doing, of course, it exposed it more to freezing and thawing, and thereby got it in better order than if turned flat. Besides that, the bottom of the furrow was more exposed to the weather, and its soil thereby got into better tilth, from the same cause, as stated above, than the bottom of the flat turned furrow.

So far as the imperfectly turned *up hill* furrows that Mr. Thompson speaks of are concerned, if there was any difference, we can only attribute it to the same cause, which explains the first case stated—a fact which, along with many more like it, goes to prove that, in some circumstances and for some

crops, thorough disintegration may be better than deep ploughing. Though it does not follow that the two are at all incompatible.

### — PLOUGHING.

OBSERVED DIFFERENCE BETWEEN A HILLSIDE AND A LIVINGSTON PLOUGH ON THE SAME LAND.

*Mr. Editor*,—There has been a desire in my mind for some time to know the reason or the cause for the production of a piece of land fallowed and cultivated in corn by me in 1852, which inquiry I will make of you or any of the readers of the Southern Planter. I have a piece of mountain side of about six acres, which I divided in half, as near as I could with my eye, and ploughed one-half with a two-horse Livingston plough, and dragged back; and the other half with Rodes' Two-Horse Hillside plough, which broke the land thoroughly, but edged it mostly. The Livingston turned effectually, and did, I thought, as good work as I could wish. I laid the ground of both ploughs' work off with the said Hillside plough and two horses, and planted all in corn alike and cultivated it alike. The crop upon the Hillside ploughing grew off the best and continued the best, and the yield of corn was *very* decidedly best—the land being similar. I sowed all in rye in the fall, and the crop upon the Hillside plough's work was so much better than that upon the Livingston's all the time, that any one could see the difference in passing through it. Now, what is the reason for this? And why is it that a hillside ploughed around with a good running plough will bring a better crop upon the land turned up hill, if well broken?

Yours, most respectfully,

ED. J. THOMPSON.

Albemarle, Nov. 10. 1854.

### EXTRACT FROM CORRESPONDENCE.

SHADE AND SUPERFICIAL MANURING.

Roanoke Bridge, Jan. 23, 1855.

"I observed in my rides that many are clearing old field piny land which, with manure (home and foreign combined) make the finest tobacco. I recollect when many of these fields were in corn, not producing a barrel to the acre. They have been resuscitated by a thick cover of pine, shading and mellowing the soil, together with the annual fall of the leaves. I am persuaded, from long observation, that land is more permanently improved by shade than any other means of improvement. Rely upon it, the surface is the place to apply and keep the manure, guarding against putting it so deep, as often not to benefit the present crop. Cow-pens should always be ploughed with coulters, so as not to cover deep the manure. All experience attests this fact, that the product is greatly reduced by covering deep the manure where the cattle have been penned.

Yours, truly,

SAMUEL D. MORTON."

If our correspondent had said that cow-pens should never be ploughed at all for a year or two, we think he would have come nearer the mark. If they can be permitted to remain a year or more they will be all the better for it.—ED. SO. PL.

From the North British Agriculturist.

### ORNAMENTAL PLANTING.

The term ornamental planting will be employed as a generic distinction, comprehending the forming of avenues, drives or walks, combining the ornamental of natural and external scenery.

Our observations will have reference to grounds surrounding the dwelling-house of the proprietor of an extensive estate. As a rule, the site of the mansion should be the centre from which all ornamentation should radiate, having reference to the front of the house. The nature of the ground may not always admit of this, but it should be kept in view as far as practicable. No trees should shade the house, and none should stand nearer the front of the mansion than one hundred yards, always excepting fine grown trees of great beauty and above medium size. These are generally regarded as relics of the past, and always possess more or less interest even to a stranger. A free circulation of air, with the admission of a full breadth of light, is always desirable. The ground around, and especially in front of the house, may be laid out either as a smooth lawn with walks, or as a flower garden. Those who have seen the garden in front of the Tuileries, and the garden at the Luxembourg in Paris, can judge of the fine effect which is produced from the combining of shrubs and flowers with well arranged walks. Several seats in Scotland have also this design of a flower garden in front and partially around the house. In forming such, however, considerable judgment and taste are required, especially in avoiding geometrical forms, and the mad attempt to convert shrubs by clipping and training to resemble animate objects. Uniformity and variety should rule the minutest parts, as well as the whole combined. Harmony of parts, with beauties single and combined, should be, therefore, the object kept in view in forming flower gardens.

In all operations connected with ornamentation, plans should first be made, and these subjected to a severe scrutiny upon the ground. This is more especially necessary, where disturbing the surface is proposed. If the intention is to open up to view a distant object of beauty, or by planting, to conceal an object which is offensive, the plan should always un-

dergo the ordeal of careful examination, and without this, nothing should be attempted. Where trees are to be introduced either for effect, or to exclude the sight of any object, poles of certain heights, corresponding in part to the supposed height of the trees, should be placed, so as to judge of the probable effect. On the other hand, in cutting down trees to exhibit some object which has hitherto been concealed, the removing of the trees should proceed with extreme caution. If these important rules were kept always in view, the purpose intended would be of much easier and of more certain attainment, and failures would very rarely follow such alterations.

Water is always an important element in rural scenery, and where its presence can be taken advantage of, it seldom fails in improving the natural characteristic beauties of the locality. But there is no more frequent or greater mistake made than in the forming of ponds and artificial lakes, where the supply of water, such as a running stream, does not admit of the whole being kept in a state of purity. Stagnant waters are offensive to the sense of smell, and injurious to the health of animal life, and health is, or ought to be, more important than ornamentation. But even in the absence of the sanitary view of the question, the introducing of water where nature forbids it, has hitherto been the most common mistake in ancient and modern ornamentation. When water is present or can be produced, it should be so arranged as to appear to occupy a hollow. Studying nature in this, as in every other detail, will produce harmony. Violence to nature can only provoke aversion in the minds of those of cultivated tastes. Where water with sufficient fall exists for forming a *jet d'eau*, such can be placed with advantage on the lawn fronting the house, and this falling into a pond surrounded with flowering shrubs has a fine effect. Where water is introduced into the house, a *jet d'eau* can generally be obtained, at least when the supply is abundant. We will, however, take occasion in a future article, to allude more particularly to the introduction of the *jet d'eau* into ornamental grounds.

The planting of trees on the banks of a pond, lake, canal, or river, should be so arranged as to give the appearance of a greater breadth and extent of water than what exists; and the trees should be so selected as to harmonize in part with the locality. Various willows and plane trees can be so arranged as to add to and heighten the effect by their coloring and the variety of their forms. It is only in certain situations that water-falls can be formed; where these exist naturally, their effect can often be

considerably heightened by planting. The nature of the soil and the amount of shading requisite, must determine in part the character of the trees. Those having pendulous branches generally harmonize well with and heighten the effect of water descending from a height. The mountain ash, the birch, the hazle, most of the pines, with the beech, the oak and the lime tree, where the soil admits of their growth, are well adapted for the top of the fall; the willows, the birch, and the hazle for the bottom. If the study is to allow the fall to be seen from a distance, trees must be introduced very sparingly, particularly below. The attempts to create or heighten the effect of water-falls by any other means than planting are almost invariably failures, calculated only to excite the risibility of those who are familiar with nature. Where a view of the sea, a lake or a river, however distant, can be obtained, such should always be taken advantage of; no object in nature is more sublime than the ocean. Those who in their youth have been accustomed to the sight of large bodies of water, feel an inexpressible pleasure in looking upon them.

Avenues are often so formed as to make a long circuit before reaching the house. This practice is becoming somewhat obsolete. The road should be, as far as possible, neither a straight line, nor a circuitous one. In every case it should be subservient to the nature of the ground, and should so approach the house as not to expose the offices and out buildings. Where water exists, advantage should be taken to bring it partially into view, by running the line of road so as to present a glimpse at more than one point. If a large lake exists, this can be easily obtained. If a river passes through the grounds, this can also be easily accomplished, by forming the road for a part of the way along its banks; when the banks are shaded with trees, this is productive of a fine effect. Keeping the avenue as near a level with the public road and the situation of the house as is convenient is always deserving of study; not but that a little variation in the level is very desirable, but utility should never be sacrificed to effect. There is a general desire to have in the avenue many of the characteristics of antiquity, and with this view, avenues are frequently formed by cutting a way through plantations which have already attained a considerable growth. In this manner, some of the finest approaches have been formed. Such avenues should be made to wind in a gradual curve, care being taken to spare the finest specimens of trees not directly in the proposed line. The avenue should rather be narrow than wide. Passing underneath large trees has a

fine effect. The edge of the avenue should be the natural turf. No attempt should be made to introduce evergreens or shrubs. The shading of the trees invariably spoils the free growth of such, and their stunted and unearthly appearance mars the general effect.

Where avenues are planted, evergreens of various orders and shrubs can be introduced into the foreground with excellent effect, the nature of the ground regulating, in part, the character of both tree and shrubs. In forming avenues, combining shade with magnificence of form, the rows of trees on each side may be all of one species; or two or more species may alternate with one another. The former, from exhibiting more of majestic uniformity, has advantages, especially where the trees attain full size; while the latter, from combining, in part, uniformity with variety, secures diversified beauty in form, magnitude and coloring. The oak, the Spanish chestnut, the lime-tree, the horse chestnut, the beech, the plane-tree, native and American, the acacia, the English and wych elm, with several of the pines, &c., are all suitable. Of these, the oak, the lime, Spanish chestnut, and the beech, form the most beautiful avenues, especially if they are of sufficient width to correspond in part with the height of the trees. For effect, the width of the avenue should exceed the height of the trees. Where shrubs are to be introduced into the foreground, this width should be still further increased. Of all plants introduced into such avenues, none exceed in beauty and effect the rhododendrons and azaleas; but they require a soft, moist soil, approaching somewhat to peat. Next to these, but of higher growth, are the holly, laurel and lauristinus. Next, for the effect, especially in summer, are the thorn and brier. Near the house, the cedar, the oak, the Spanish chestnut, and the lime-tree, should be introduced, if the soil is deep, fresh and somewhat rich: if gravelly, the beech; and, if rocky, the sycamore, the birch and the ash.

Where the vista is intended for a drive or walk, and shade is required, the Spanish chestnut, the sycamore, and lime-tree are very suitable. In forming such roads, variety of trees should be introduced. This variety imparts additional charms to the drive or walk. Drives through plantations should be without any attempts to introduce other than the trees which go to form the whole. Where the whin and broom will take, these may be introduced sparingly. Both are objects of great beauty when in flower.

The avenues, alleys and vistas, diverging from the house should point to objects of beauty

beyond their termination, and where these stop short for producing the full effect, planting in stripes should be extended in the direction. Single or scattered trees will frequently produce the desired effect. Design should be always apparent, but should be so subdued as not to obtrude upon the attention of the observer.

Where the nature of the soil and situation do not admit of the introduction of the oak, chestnut, &c., the beech, the Scotch pine, the larch, the mountain-ash, and birch may take their place. To produce a healthy growth, freeing the ground of water, and in the first stages of growth, keep them free from weeds, and protecting them from injury from game, will generally prove sufficient. Where economizing expense is less an object than to form a beautiful place, besides the above precautions, rich earth, or even manure, may be employed to place at the roots of the young trees. Some trees, such as the chestnut, in a deep calcareous soil. Several other trees also thrive where lime is in abundance—the lime-tree, all the poplars, the beech, &c.

Different avenues, clumps, and more minute parts, should be formed of different species, and some of the rarer or more beautiful trees placed in the foreground. Among the dwarf trees, for effect, none exceed the alburnum. This should always be introduced into the skirts of clumps or masses. Where trees of considerable magnitude stand unconnected, no other trees of medium height should be introduced close to them. Nothing can be finer in effect than to see full grown trees standing alone, dotting a greensward, which undulates with the nature of the ground. In forming such parks, trees of different forms of growth as to magnitude, form of head, branches, whether upright or drooping, and shade of color, should be introduced. If water is present, the weeping willow produces a pleasing contrast to the oak, sycamore, &c. The thorn, from its fragrance when in blossom, and also from its peculiarity of growing, should be always present. Where the land is intended to be cultivated, few trees should be introduced, and, when introduced, should be in clumps rather than as standing apart. Where a road, public or private, passes through the grounds, a single or double row of trees planted on each side of it generally produces a fine effect, particularly when the road passes at or near to a right angle. The trees, by partly concealing what is passing, heighten the interest. Where the view of a line of railway can be obtained, concealment is now not generally desirable. The rapidity with which the trains move does not admit of the eye being satiated before they are lost to sight.

Some proprietors have, however, rather hostile feelings towards the innovations caused by the line of railway, and to such, these are objects of annoyance. The banks can be planted, or trees can be otherwise introduced to partially or wholly exclude the sight of the passing trains. This prejudice, however, is rapidly giving way, and the economic advantages resulting from the contiguity of such a means of transit will dissipate the remnant feeling.

From the Plough, the Loom and the Anvil.

#### FARMING IN VIRGINIA.

Rockbridge county is situated in the Valley of Virginia, near the centre of the State. As you are no doubt aware, the Valley, from near the Tennessee line to Harper's Ferry, boasts of as fine lands as are to be found in the State. Much of this land is in a high state of cultivation, producing heavy crops of corn, wheat, rye, oats and buckwheat, with almost every culinary vegetable. There are also many fine grazing farms, on which are raised fine cattle, substantial and some fine horses, Cotswold, Southdown, Saxony, Merino, and other sheep, with fine hogs of the different breeds. Much of our stock is driven to the Richmond, Baltimore, Philadelphia and New York markets.

There has also been a good deal of attention paid to fruit culture in late years, and we will soon have abundant supplies of apples, pears, peaches, nectarines, apricots, plums, prunes, damsons, strawberries, gooseberries, &c. Apples grow well every where, but some of the other varieties do not succeed so well on stiff clay soils. The county of Rockbridge, and other counties lying further south, produce all the above varieties in perfection, when properly cultivated.

So far as my knowledge extends, there are not many dairy farms in the Valley. There are, however, some, which I learn pay well. Butter of fine quality, and in considerable quantities, is made, which finds a ready market in Richmond, Virginia.

The Central Rail Road, now almost completed from Richmond to Staunton, 120 miles, will, in a month, give us ready access to market. This road is pushing west to the Ohio River, and it is said will be completed in the next three or four years. It will pass by Covington, where it will meet the James River Canal. These two improvements will open up unbounded stores of mineral wealth in our western mountains; and when once completed, will throw an immense trade into Richmond, in connection with the Tennessee and South Side Rail Roads;

a new era will dawn on the cities of Richmond, Norfolk and Petersburg.

There is now in progress a canal from the James River to Lexington, our county seat, a distance of about twenty miles on the water line. About one-half of this canal will be in operation this spring, and it will probably be completed in the next year, 1855, and it is thought it will pay well. The North River on the line of this canal, and above, affords very fine water-power. Indeed, our county boasts of almost unlimited water-power, being watered on the south by the James River, Buffalo, Collier's Creek; the North River, near the centre of the county; Hay's, Walker's and Moffett's Creeks, and the South River running along the base of the Blue Ridge, with other smaller streams, offer sites to small capitalists, for every branch of mechanical labor.

Our lands vary in quality from the finest bottoms, worth \$100 per acre, to mountain lands at 10 cents. There are no arable lands worth having that can be purchased for less than \$5. From this price up; \$10, \$15, \$20, \$30 and \$50, for our best up-lands, well adapted to corn, wheat and rye. As you approach the James River, some tobacco is cultivated, but it is not one of our staples. There are many good flouring mills in the county, and much of the wheat raised here is of very superior quality, weighing often 66 lbs. per bushel; rarely falling below 60 lbs. per bushel. The flour manufactured in our Valley is generally of superior quality; the yield being twenty barrels per hundred for Mediterranean wheat, to twenty-two and twenty-three barrels for fine white wheats, per hundred bushels. Our best wheat lands, under fine cultivation, yield forty bushels per acre. Good farmers get an average of twenty to twenty-five bushels, and poor farmers fall as low as five bushels per acre. Of corn the same may be said; all depends on proper cultivation and quality of land; from ten bushels up to one hundred bushels per acre have been raised.

Before closing this communication, I will say a word about our servants, as many persons at the North labor under mistaken views on this subject. The servants of the landed proprietors in the Valley of Virginia are as well fed, housed, and clothed, as the laboring classes of any other community. If it were not our duty, it is our interest, to see that they are properly cared for. Almost every family of servants have their house, beds and bedding. They are regularly worked, and called to their meals, where there is always plenty, morning, noon and night; and during the harvest months, many farmers send out an evening-piece, be-

tween 4 and 5 P. M. They very often work with their masters, and fare as well. If sick, medical aid is always afforded, and they are carefully nursed. They are rarely compelled to work in bad weather; and always have a patch to work for themselves, if they wish it. Many of them spend their nights, till bedtime, in making baskets, mats and brooms, &c., for their own benefit. All who wish it, are allowed to attend the preacher of their own choice, on every Sabbath; and in communion seasons have Saturday to attend church.

I have no hesitation in saying that they are infinitely better off than the free negroes amongst us, and as a mass are better fed, housed and clothed than many of the poor white families in our community. They are generally much attached to the families in which they live, and good servants always take an interest in the prosperity of their owners. When servants become old, and unfit to work, the master is bound by the laws of the State to take care of them as long as they live.

There are some exceptions to this general rule, and you will sometimes find hard masters, even when they have white servants.

Your obedient servant,

HENRY B. JONES.

Breensburg, Rockbridge, Va., Feb. 4, 1854.

From the Ohio Farmer.

#### THE FARMER'S MODE OF LIVING.

There is no error more pernicious, or more prevalent than the idea that the chief end of existence is to toil and garner up riches. Men will not, in so many words, acknowledge their belief in a doctrine so abominable, but the actions of by far the greater part of mankind demonstrate that, to all practical intents and purposes they do belong to that household of faith. The world of men and women, if called upon to-day to define by their *acts* and *modes of life*, their idea of the paramount objects of existence, would verify the seemingly sweeping assertion that we have made.

And yet, each soul has institutions teaching better things. Labor, in itself, is far from being attractive. A given amount of physical effort may be conducive to health and happiness; but even then labor is not the end—happiness is the end, and labor the means of securing it. Just as it is, as regards the increase or accumulation of wealth. A mass of wealth, hoarded up, as the avails of toil, or the speculation—or what is worse—of reckless ambition, or grasping avarice—can impart to the mind nothing that deserves the name of joy. It oftener causes a train of evils, infinitely worse

than the ordinary concomitants of poverty—worse, because avarice itself is a curse, to say nothing of the numberless discomforts always attending it.

This is, after all, a fair and beautiful world—a place fitted with infinite skill, for the temporary dwelling place of man. It hath not entered into the heart of man to conceive how the great Architect could have done better by us. The broad fields are before and around us, variegated as models of taste, and every where inviting us to adorn the garden planted by his Master's hand, and to enjoy the munificent benefactions of his providence; while our heads are spread out the glorious heavens, as the eloquent exponents of unchanging and incomprehensible goodness. And yet, the multitude of those who "live, move, and have their being," in the very atmosphere of an all-comprehending benevolence, which demands of all that they shall be happy, and joyful all the day long, turn away their faces from beholding the brightness of the Creator's face, and make it the great object of existence, not to enjoy but to accumulate.

Now, it may be earnestly insisted upon, that a mode of life, to such a perversion of the grand elementary principles of social existence, to say nothing of the eternal fitness of things, can never be otherwise than debasing and unprofitable. Especially is this true of those who, as the cultivators of the soil, are in the very midst of objects calculated to enlarge and quicken into healthful activity, the finer capacities for enjoyment, and who stands intimately related to the Creator by a practical familiarity with the laws of the universe. Those who can cause the earth to become clothed in living green, and who call "the cattle upon a thousand hills" their own, ought, assuredly, to be able to extract from the unperturbed volume of nature the most useful and delightful instruction, and to live in a way to render their days a beautiful commentary, not upon the goodness of God merely, but upon the capacity for enjoyment which that goodness has bestowed upon us.

If we are right in this, it follows that those whose chosen lot is to cultivate the earth, should fix upon a mode of life best adapted to the end of promoting their own happiness, and that of those who share the labors of their vocation. They ought not to live upon the refuse of their crops, nor in any way to cut themselves off from the indulgences, or refinements of life. Who, better than the laborer, is entitled to the choice dainties produced by his industry? Why should he select from his larder or his granary, from his orchard or his garden, the best parts

for the drones of the social hive, and feed himself and family on what is left? Or why should he banish comfort from his own fireside, for the sake of making money for his heirs to quarrel about?

Not only should the farmer's home be the abode of cheerfulness, peace and contentment, but it should be distinguished by the adornments of taste, and the embellishments of an advanced and progressive civilization. Increasing facilities of production should be attended by increased endeavors to render abundance subservient to the higher and nobler ends of existence. The accustomed hours of labor should be followed by evenings of peace and innocent hilarity, the cares of the day should be sanctified to the good of the farmer's household, by the hallowing influence of sympathy; and from the domestic altar should go up, to the ear of complacent Heaven, the offering of sincere and heartfelt gratitude. And this will be found no fancy sketch when the real interest of the industrial classes shall come to be properly understood and duly appreciated. And were such a thing practicable, our agricultural societies would do well to offer a liberal premium for the best regulated home; and a diploma for the largest amount of domestic enjoyment. Till they do so, we will offer, on individual account, a volume of the *Ohio Farmer* for the best mode of life, adapted to the rural districts and the wants of our fellow-laborers in the cause of industrial improvement.

From the *Maine Farmer*.

#### DOES FREEZING DESTROY VEGETABLES?

It is the prevailing idea that freezing destroys or renders almost useless, potatoes, apples, the various kinds of garden vegetables, house plants and roots.

For the benefit of all who may regard it, I send you the result of my experiments in this department of useful knowledge.

In the month of November, before the ground froze, I dug a trench in my garden about twenty feet long, varying in depth from twelve to two inches. In the trench at the depth of two, four, six, eight, ten and twelve inches, I placed potatoes, apples, beets, carrots, onions and turnips, and carefully covered them with the earth therefrom.

In the spring I opened the trench and found that those covered only two inches were mostly decayed, and all those of four inches and upwards in a perfect state of preservation.

I also put eight or ten barrels of apples in a cold chamber, carefully surrounding and co-

vering the apples with saw-dust and replacing the heads in the barrels.

When the weather became cold, I examined and found them frozen. I took a quantity in a box surrounded by saw-dust, another lot in a tight box without saw-dust, placed them in the cellar. In a few days when the frost was out, they were as perfect as before freezing; also those in the barrels in the cold chamber so far as they were covered from the effect of air and light.

I also left the head out of one barrel in the cold chamber, the apples being covered three or four inches with saw-dust. When the frost was out, those near the top were not so perfect as those which had been covered in the tight box above mentioned without saw-dust. From a variety of experiments on the same subject, there exists little doubt that light, air and electricity are important agents in the destruction of vegetable life in certain conditions, as well as aids in the mysterious process of vegetation and fructification.

The manner of thawing and not of freezing destroys vegetables, plants, vines, &c. Sand is preferable to saw-dust, being less porous. Garden vegetables, left out by accident, will be safe if covered with earth.

Upon the subject of vines and plants, it may be sufficient to state that I had in my garden, a very tender white grape vine, which had been killed by frost for several years in succession from neglect of the former occupant.

I left it uncovered until the first cold weather came, and with it six or eight inches of snow. The vine was so thoroughly frozen that with difficulty it could be removed from the frame. I bared the ground, coiled it in a small space, and covered it with straw, chips and earth, about six inches deep. My neighbors who knew the vine, shook their heads, adding, "your next year's crop will all be leaves." The vine was uninjured, and the next year bore grapes abundantly.

M. R. FLETCHER.

*Portland, Maine, Dec. 7, 1854.*

From *De Bow's Review*.

#### WOOL.

The high prices which have governed wool, says the "*United States Economist*," in the last two years, have undoubtedly stimulated production to an extent which must tell on prices in face of the depression which the war fears of Europe cast over the production of cloth as well here as in England and Germany.



Australia has for a long time been the chief source of supply to England, and when the gold fever broke out in that region the liveliest fears were entertained in England in relation to supply, and prices in consequence of those fears ran high. The fact of high prices seems to have obviated the evil dreaded, since the supply has been vastly larger than ever before. The following return of the British Board of Trade gives the supply:

## IMPORT OF WOOL INTO ENGLAND.

	1849.	1850.	1851.	1852.	1853.
	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>
Spain.....	127,579	440,751	383,150	223,413	151,117
Germany, viz: Mecklenburg, Hanover, Oldenburg and Hanse Towns.....	12,750,011	9,166,731	8,219,236	12,765,253	11,581,800
Other countries of Europe.....	11,132,354	8,703,252	14,263,156	13,782,040	28,861,166
British Possessions in South Africa.....	5,377,595	5,709,529	5,816,591	6,338,796	7,221,448
British Possessions in East Indies....	4,182,853	3,473,152	4,549,520	7,880,784	12,400,869
British Settlements in Australia.....	35,849,171	39,018,221	41,810,117	43,197,301	47,075,812
South America.....	6,014,525	5,296,648	4,850,048	6,552,689	9,740,032
Other countries.....	1,004,679	2,518,394	3,420,157	3,661,082	4,358,172
Total.....	76,768,647	74,826,778	83,311,975	93,761,458	119,396,445

The increase here is 26,000,000 lbs. for the year, of which 6,000,000 is from Australia, from which country the increase has been annually greater instead of falling off. With such large supplies of wool up to the close of the year which ended amidst the depression of war fears, prices in England have fallen fifteen to twenty per cent. inclusively, English as well as imported. On the continent, not a dissimilar state of things is manifest. This decline in the raw material, together with the diminished consumption of cloths, points to lower prices, justly checking any disposition on the part of American manufacturers to buy more than supplies daily wants. Those of them who use imported wools like the heavy 10 lb. fleeces of South America, are opposed to the competition of foreign goods. Thus manufacturers of worsted yarns buy wools of South America. They pay for 100 lbs. thirty per cent. duty; out of that they make 85 lbs. of worsted yarn, on which is paid twenty-five per cent. duty. Thus there is a difference of five per cent. bounty on importing the yarns which are produced abroad at lower rates. These manufacturers buy very cautiously, and the consumers of American wool do likewise. The absurdity of the duty is very manifest. In the face of this disposition, accompanied by a tight money market, a clip will soon come forward of considerable magnitude, being produced under favorable circumstances, stimulated by high prices. The declining state of woollens, and the backwardness of the spring business, will in all probability react upon the wool-growers.

Cattle and hogs should be fattened rapidly now, both having dry and warm beds, and fed liberally.

From the Genesee Farmer.

## NOTES ON THE CULTIVATION OF THE CHERRY UPON THE MAHALEB STOCK.

Owing to the greatly increased attention which horticultural pursuits have commanded within the past few years, many trials and experiments have been made by zealous cultivators with the different varieties of fruits, and testing the various kinds of stocks, by subjecting them to different influences, and applying the same to the wants of the public and to the various sections of the country.

It is folly to presume that one variety of fruit, or a tree grown upon a particular kind of stock, or in a certain form, will succeed equally well in the many sections of our land, which embraces so great an expanse of territory, such a diversity of climates, and an almost endless variety of soils. To make the proper classification or assignment for fruits, so that one to a certainty can say that this will succeed admirably in this locality and fail in that, will require much labor and patient study for years. The results of some are already known, and it is this fact which has given horticulture such an astonishing impetus, unexampled in any age.

Cultivating the pear upon the quince in the dwarf, pyramidal and half-standard form, is extensively practiced; also the apple and cherry, though not so largely; and in some degree the peach and plum.

Dwarf and pyramidal cherries, which are produced by grafting or budding the different varieties of this fruit upon the mahaleb stock, promise to be invaluable, more particularly to the south-west and west. Standard cherries, which are grown upon the mazard stock, in our naturally over-rich western soils, produce such

a great amount of wood as to bear little or no fruit; and owing most probably to the very imperfect ripening of the wood, the trunk of the tree splits upon the approach of winter and soon perishes. The hot and long-continued dry weather during the summer months, in the southern parts of Ohio, Indiana and Illinois, prevailing at about the time of the ripening of the fruit, is a serious drawback.

Those cultivated upon the Mahaleb stock, as experience proves, are much less affected by the extremes of wet and dry weather, thereby insuring a good crop of fruit; the wood, too, is better ripened, so as to withstand most successively the winters. The habit of the tree resumes naturally a pyramidal shape. The lower branches commence to form near the ground, and the future limbs shoot out at regular distances, as the leader of the plant rises. The tree being low, is well adapted to withstand the high winds that prevail upon the prairies, and more or less in all level countries; and the trunk or body of the plant is well protected from the destructive influence of the sun. Its most peculiar and promising characteristics are its great productiveness, and the early stage at which it bears fruit. Frequently mere bushes, only two or three years old from bud, are literally laden with the choicest cherries. Upon clayey or very dry, poor chalybeate soils, it thrives finely, where the mazard would not flourish.

Cherries of the *Duke* and *Morello* classes would attain the height of ten or twelve feet, if desired. With a little pruning once or twice a year, principally cutting back the extremities of the shoots, they can be made to assume a pyramidal shape or bush form, which, while it detracts nothing from their fruitfulness, well adapts them for gardens and places affording but little room.

The more free and rapid growing sorts, comprised in the *Heart* and *Bigarreau* classes, would grow from fourteen to sixteen feet, but they ought to be kept within less bounds by pruning. They are well adapted for gardens and orchards in rather sterile localities, where a little more space should be allotted them than is required for the *Dukes* and *Morellos*.

#### TO FATTEN FOWLS.

Fowls may be fattened in four or five days by the following process: Set some rice over the fire with skimmed milk, as much only as will serve one day; let it boil till the rice is swelled out; add a tea-spoonful of sugar. Feed the fowls four or five times a day in pans, and give them as much each time as will fill them. Great care must be taken that they have nothing

sour given them, as that prevents their fattening. Give them clean water or milk from rice to drink. By this method the flesh will have a clear whiteness.

From the London Times, December 25.

#### A NEW GUANO DEPOSIT DISCOVERED BY AMERICANS.

Advices from St. Thomas by the last West India mail give some particulars of the guano discovery lately made in that vicinity at a spot called Aves, or Bird Island, stated to belong to the Dutch government. The deposit was found by the master of an American ship, called the Kentucky, and the quantity is said to be equal to 300,000 or 400,000 tons, while its quality approaches that of the Chincha Islands.

Two American vessels, the Kentucky and the Comery, were already taking cargoes from it, and they are said to have landed 50 men to occupy the place, and to drive off intruders, with two pieces of cannon. If the estimates of quantity and quality should be realized, the value of the island will be very great, but the locality scarcely warrants an expectation of the deposits being nearly equal to the Peruvian. Aves Island is one of the leeward group of the West Indies, and lies between the 15th and 16th degrees of north latitude, and 63d and 64th degrees of West longitude.

The island here referred to, according to the New York Evening Post, lies east of St. Thomas, towards Barbadoes, and has been frequented more or less many years past by bird's-egg-hunters. The island forms a sort of basin, with a rock-bound rim toward the sea, and is frequented daily during certain seasons of the year by myriads of sea-birds to lay their eggs. The egg-hunters from the neighboring islands go there with small sloops, and upon their arrival proceed to break all the eggs that they find, and then retire. On the following day they return, and load their vessels with eggs that have been laid over night. In the course of thirty hours they will sometimes take up between one hundred and fifty and two hundred thousand eggs. The reason they break the eggs lying on the ground when they arrive, is to be sure that they carry away none but fresh ones.

#### CORN.

The most valuable crop in the United States is that of Indian corn, estimated in 1850 at two hundred and ninety-six millions of dollars and being nearly three times as valuable as

cotton. Six times as many acres of land are devoted to Indian corn as are given to cotton, and three times as much to wheat.

From the New England Farmer.

#### CHEAP AND EXCELLENT CANDLES.

The following recipe I copied from a newspaper, some twelve months since. I have tried it twice, and find it all that it is cracked up to be. I have no doubt that it would have been worth more than twenty dollars to me if I had known it twenty years ago. Most farmers have a surplus of stale fat and dirty grease, which can be made into *good candles*, at a trifling expense.

I kept both tallow and lard candles through the last summer, the lard candles standing the heat best, and burning quite as well, and giving as good a light as the tallow ones. I have never seen it in the New England Farmer: perhaps it has been published there, notwithstanding.

I submit the following directions for making good candles from lard: For 12 lbs. of lard, take 1 lb. of saltpetre and 1 lb. of alum; mix them and pulverize them; dissolve the saltpetre and alum with a gill of boiling water; pour the compound into the lard before it is quite all melted; stir the whole until it boils; skim off what rises; let it simmer until the water is all boiled out, or till it ceases to throw off steam; pour off the lard as soon as it is done, and clean the boiler while it is hot. If the candles are to be run, you may commence immediately; if to be dipped, let the lard cool first to a cake, and then treat it as you would tallow.

Respectfully yours,

ALANSON PARMELEE.

#### DOMESTIC RECIPES.

[Selected from various sources.]

**POT-AU-FEU.**—This is by far the most wholesome of all soups. Take three pounds of good rump of beef, or any part free from bone and not too fat; put it in an earthen fire-proof pot, with three quarts of water, one large carrot, two turnips, two leeks, a head of celery, and one burnt onion; season, and let the soup boil slowly, skimming it from time to time, for at least five hours; then strain it through a fine sieve, and pour it over thin slices of bread to serve. The meat and vegetables make a dish which is afterwards served. Thus cooked, the beef becomes tender and juicy, and is excellent cold.

**CABBAGES.**—There are more ways to cook a fine cabbage than to boil it with a bacon side, and yet few seem to comprehend that there can be any loss in cooking it, even in this simple way. Two-thirds of the cooks place cabbage in cold water and start it to boiling; this extracts all the best juices, and makes the pot liquor a soup. The cabbage head, after having been washed and quartered should be dropped into boiling water, with no more meat than will just season it. Cabbage may be cooked to equal broccolo or cauliflower. Take a firm, sweet head, cut it into shreds, lay it in salt and water for six hours. Now place it in boiling water until it becomes tender—turn the water off, and add sweet milk when thoroughly done; take it up in a colander, and drain. Now season with butter and pepper, with a little nutmeg grated over, and you will have a dish little resembling what are generally called *greens*.—*Soil of the South.*

**TO IMPROVE TEA.**—Mr. Soyer recommends housekeepers to place the tea-pot upon the hob for a little while before making. This plan certainly improves both strength and flavor. Rain-water, when pure, is the best for making all infusions, including tea, of course; since the solvent powers of water are great in proportion to its freedom from earthy salts.

#### WATER-PROOF COMPOSITION.

Take one pint of boiling linseed oil, 2 oz. of beeswax, 3 oz. spirits of turpentine, and 2 oz. Burgundy pitch. With this mixture, new boots and shoes are to be rubbed in the sun or a little distance from the fire, with a sponge or brush. This operation should be repeated without wearing them, as often as they become dry, until they are fully saturated; which will require four or five times brushing. By this, the leather becomes impervious to water. The boot or shoe thus prepared, lasts much longer than common leather; it acquires such pliability and softness that it will never shrivel, nor grow hard, and in that state, is the most effectual preventive against colds, &c. It is necessary to remark that shoes and boots thus prepared, ought to be worn until they become perfectly dry and elastic; as in the contrary case, the leather will become too soft, and wear out much sooner than it otherwise would.

#### FINE HOGS.

Last year, George M. Lawson, manager for Mr. Charles Bruce, at Stony Point plantation, Charlotte, killed 71 hogs, which averaged 210½ lbs. net.

## PAYMENTS TO THE SOUTHERN PLANTER,

To the 28th of January, 1855.

All persons who have made payments early enough to be entered, and whose names do not appear in the following receipt list, are requested to give immediate notice of the omission, in order that the correction may be made in the next issue:

P. C. Carrington to January 1856	\$1 00	Thomas Wood to January 1856	#1 00	
A. Pointer to January 1856	1 00	W. A. Warren to January 1856	1 00	
O. P. Gray to January 1855	1 00	P. Trotter to January 1856	33	
Col. T. M. Burwell to January 1856	1 00	S. S. Woodhouse to January 1856	1 00	
G. H. Brown to July 1855	1 00	Col. J. Trotter to January 1856	1 00	
John England to January 1856	1 00	Col. W. Y. Mason to January 1856	1 00	
Dr. J. M. Garnett to January 1856	1 00	Capt. Edward Haskins to January 1856	1 00	
A. M. Garnett to January 1856	1 00	Dr. Aaron B. Haskins to January 1856	1 00	
Cor. Rea to November 1855	1 00	Duke J. Palmer to October 1855	1 00	
B. J. Worsham to January 1856	1 00	Wm. Thomas, Jr., to January 1856	1 00	
John H. Walker to January 1856	1 00	Joseph Jones to January 1856	1 00	
W. B. Randolph to January 1856	1 00	B. W. Hiner to January 1855	1 00	
Col. W. H. Daingerfield to January 1856	1 00	W. McCoy to January 1856	2 00	
R. H. Turnbull to July 1855	1 00	John J. London to January 1856	1 00	
J. S. Woodson to January 1855	2 00	A. G. Green to January 1856	1 00	
Edmund Henshaw to July 1855	1 00	W. P. Woodward to January 1855	5 00	
C. W. Friend to January 1856	3 00	J. W. Morriss to January 1856	1 00	
Thomas Friend to January 1856	3 00	J. Michaux to January 1856	1 00	
G. R. Trant to January 1856	1 00	James B. Brockwell to January 1856	1 00	
Thomas Robinson to July 1855	4 00	H. A. Winfree to January 1862	5 00	
Dr. W. G. Pollard to January 1856	1 00	M. Harrison to January 1856	1 00	
Robert B. Burruss to January 1856	1 00	Barksdale & Read to January 1856	1 00	
Robert Meredith to October 1855	1 00	John Sanders to January 1856	}	
Dr. B. Fleet to July 1855	1 00	Adam Sanders to January 1856		}
W. E. Preston to September 1857	5 00	Dr. B. T. Sanders to January 1856		
O. H. P. Terrill to January 1856	1 00	S. D. Sanders to January 1856	5 00	
W. C. Graves to July 1855	1 00	Dr. R. W. Sanders to January 1856	}	
O. P. Graves to September 1855	1 00	Robert Jackson to January 1856		}
Ro. Y. Henley to January 1856	1 00	Colin Clarke to January 1856	1 00	
J. W. Bradley to November 1855	1 00	T. Arvin to January 1856	2 00	
H. T. Drevvry to January 1856	1 00	J. Higgins to January 1856	1 00	
N. Horseley to January 1857	1 00	W. H. Clarke to January 1856	1 00	
Rev. P. Cleveland to January 1856	1 00	G. T. Barnes to January 1856	1 00	
Professor Puryear to January 1856	2 00	W. N. Barker to January 1856	1 00	
C. T. Chaplain to July 1858	5 00	Dr. P. Trent to January 1856	1 00	
J. Morton to January 1856	1 00	N. P. Howard to January 1856	1 00	
Major G. W. Yancey to January 1855	1 00	Ben. Burton to January 1856	1 00	
S. O. Duval to January 1856	1 00	Dr. W. J. Dupuy to January 1856	1 00	
Charles B. Claiborne to November 1855	1 00	Edmund Ruffin, Jr., to January 1856	1 00	
Col. R. Rowzee to January 1856	1 00	T. Parramore to January 1856	1 00	
Thomas A. Michie to January 1855	4 00	Thomas P. Copes to January 1856	1 00	
Joel Williams to January 1855	3 00	William Fulton to July 1855	2 00	
Thomas Bailey to January 1857	2 00	Major B. Craig to September 1855	1 00	
James R. Kent to October 1855	1 00	Jefferson Spindle to January 1856	1 00	
A. P. Hutchinson to January 1856	1 00	T. T. Dillard to January 1856	1 00	
W. O. Eubank to January 1856	1 00	S. P. Haygood to January 1856	1 00	
S. A. M. Leland to January 1856	5 00	Thomas T. Pettus to January 1856	1 00	
Dr. A. T. Green to January 1856	1 00	William Henderson to January 1856	1 00	
John W. Paxton to January 1856	1 00	H. B. Hunter to July 1855	1 00	
H. C. Watkins to January 1856	1 00	B. W. Brockenbrough to January 1856	1 00	
W. M. Marshall to January 1856	1 00	Dr. J. L. Woodville to January 1856	1 00	
James Arnold to January 1856	1 00	A. T. Maxey to January 1856	1 00	
L. H. Blair to January 1856	12	T. W. Morton to December 1855	1 50	
J. B. Sinclair to January 1856	1 00	S. B. Sherman to April 1855	1 00	
George H. Burwell to January 1856	1 00	W. H. Simmons to September 1855	1 00	
G. Tarry to January 1856	1 00	James P. White to January 1856	2 00	
W. R. Bland to January 1856	1 00	J. Hobbs to January 1855	5 00	
Andrew Edwards to January 1856	1 00	Joseph Godfrey to January 1855	1 25	
G. W. Clarke to January 1856	1 00	A. Garrett to January 1856	1 00	
Rev. B. Delaney to March 1856	1 00	Joseph C. Cabell to January 1856	1 00	
George G. Carter to January 1856	1 00	R. O. Morriss to January 1856	2 00	
Joseph C. Boxley to January 1856	1 00	Dr. W. Gwathmey to January 1856	1 00	
John Hart to January 1856	1 00	Col. W. R. Tate to January 1856	1 00	
		Joshua Miller to July 1855	1 00	
		Robert Brooks to January 1855	2 00	
		D. J. Payne to January 1856	1 00	
		James L. Hoot to January 1856	1 00	
		S. P. Ryland to January 1856	1 00	
		Dr. J. H. Ellerson to January 1856	1 00	
		George W. Matthews to January 1856	1 00	
		W. Holladay to January 1856	1 00	
		A. M. Hobson to January 1856	1 00	
		John D. Hobson to January 1856	1 00	

James B. Shelton to January 1856	\$1 00
Caleb Lee to January 1856	1 00
W. P. Taylor to January 1856	5 00
Capt. Thomas Nelson to January 1856	1 00
S. B. Cross to January 1856	1 00
Joseph S. Spangler to January 1856	1 00
J. Brumley to January 1856	1 00
James L. Harris to January 1856	1 00
John H. Knight to January 1856	1 00
Nathaniel King to January 1856	1 00
R. V. Tiffey to December 1855	6 00
Dr. A. B. Hoove to January 1855	2 00
R. H. Foote to July 1855	2 00
Dr. W. M. Woodson to November 1855	1 00
W. D. Ranson to January 1856	1 00
J. A. Grosclose to April 1856	1 00
Hart & Hays to January 1856	1 00
William Smith to January 1856	1 00
F. G. Murphy to January 1856	1 00
D. S. Delaplaine to January 1856	1 00
R. P. Atkinson to January 1856	1 00
M. Willis to January 1856	2 00
Dr. R. R. Puryear to February 1856	1 00
James Higgins to January 1855	1 00
W. B. Wiltshire to July 1855	2 00
L. M. Coleman to January 1856	1 00
Col. John Thom to January 1856	1 00
W. H. Cutchem to January 1856	1 00
A. T. Mills to July 1856	2 00
E. G. Bagley to January 1856	1 00
R. Stringfellow to January 1856	1 00
W. C. Jeffress to January 1855	1 00
L. N. Davis to January 1856	1 00
A. B. Balfour to January 1856	1 00
William D. Cabell to February 1856	1 00
D. E. Gardner to January 1856	1 00
H. C. France to January 1856	1 00
Dr. Minor to January 1856	1 00
Rich. D. Carter to January 1856	2 00
Dr. A. Brockenbrough to January 1856	1 00
R. P. H. Campbell to January 1856	1 00
E. B. Perry to January 1856	1 00
D. C. Anderson to January 1856	1 00
R. D. Carter to January 1856	2 00
C. C. Carter to January 1856	1 00
Chs. D. Pettus to January 1856	1 00
John C. Thom to January 1856	2 00
S. B. Fisher to January 1856	1 00
Ro. S. Lucke to April 1855	1 00
F. W. Connor to January 1856	1 00
W. C. Stribling to January 1856	1 00
W. A. Reese to September 1855	1 00
Dr. T. J. Woodridge to September 1855	1 00
James C. Hobbs to January 1856	1 00
Ro. S. Bell to January 1856	1 00
P. D. Lowry to January 1856	1 00
Post Master at Beaufort, N. C., to Jan. 1856	1 00
James Newbold to January 1856	2 00
Col. S. McD. Reid to January 1856	1 00
E. C. Robinson to January 1856	2 00
B. W. Talley to July 1855	1 00
H. B. Jones to January 1856	1 00
P. A. Taylor to January 1856	1 00
E. R. Cook to January 1856	1 00
J. T. Marston to January 1856	1 00
W. P. Browne to January 1856	5 00
N. Piggott to January 1856	1 00
H. L. Taylor to January 1856	1 00
Col. C. B. Killebrew to January 1856	1 00
Samuel D. Morton to January 1856	1 00
R. C. Harveys to January 1856	1 00
Jos. Nichols (dec'd) to January 1855	1 75
W. Thornhill to January 1856	1 00

W. H. Harrison to January 1855	\$1 00
H. W. Lattane to January 1856	1 00
J. H. Earnest to November 1855	1 00
J. T. J. Mason to January 1856	1 00
Jos. W. Mason (dec'd) to January 1855	25
John Edmonds to November 1855	1 00
Major J. S. Harris to October 1857	5 00
John Ball to March 1855	1 00
John Glenn to January 1856	1 00
W. H. Overstreet to January 1856	1 00
Capt. Benj. Allen to December 1855	1 00
John Jeter to January 1856	2 00
Dr. Geo. C. Scott to January 1856	1 00
Alex. Kerr to January 1856	1 00
Jos. H. Skelton to January 1856	1 00
Ludy Cauthorn to January 1856	1 00
J. T. Mills to January 1856	2 00
R. T. Hubbard to January 1856	1 00
J. F. Bradley to January 1856	1 00
N. Mantply to November 1855	1 00
O. S. Jewett to January 1856	1 00
W. T. Walters to January 1856	1 00
C. T. Hightower to January 1856	1 00
Col. J. M. Waller to January 1856	1 00
James L. Mills to January 1856	1 00

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## McLANE'S VERMIFUGE.

No remedy ever invented has been so successful as the great worm medicine of Dr. McLane. All who have used it have been equally astonished and delighted at its wonderful energy and efficacy. To publish all the testimonials in its favor would fill volumes; we must, therefore, content ourselves with a brief abstract of a few of them:

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Jonathan Houghman, of West Union, Park county, Indiana, writes that he is unable to supply the demand, as the people in his neighborhood say, after a trial of the others, that none is equal to Dr. McLane's Vermifuge.

Messrs. D. & J. W. Colton, of Winchester, Indiana, happened last spring to get some of this Vermifuge. After selling a few bottles, the demand became so great for it that their stock was soon exhausted. They state that it has produced the best effect wherever used, and is very popular among the people.

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CRENSHAW & CO.,  
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