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. T. BAILIE, Publisher.

Vol. XV. RICHMOND, OCTOBER, 1855 No. 10.

From the Horticulturist.

STRAWBERRIES AND THEIR CULTURE.

The discussion of the strawberry question, which has occupied the pages of agricultural and horticural journals so largely for a few years past, has been the means, directly and indirectly, of advancing materially the cultivation of that fruit. We find ample evidence of this in the more abundant supply of our markets, and in the production of a large number of seedling varieties. Recent letters from correspondents in all parts of the country, as well as reports of late exhibitions, all testify to the very general interest which is felt on the subject, and the progress that has been made. But, after all, we are constrained to say that our cultivation is yet very imperfect. The size and appearance of the great bulk of fruit offered in market, convince us of this. Those who know how to cultivate, are in many cases slovenly, or act upon the principle that good culture will not pay; while there are many who fail for the want of correct information on the subject. We have now before us a large number of inquiries on the subject. One wants to know how to prepare the soil; another when to plant; another how to plant. Several correspondents who are well informed on the subject of cultivation, ask us to give them the names of the best perfect flowering sorts, as they are tired of keeping separate the staminate and pistilate varieties. We have therefore thought it best to offer a few hints which will serve as a general answer.

We will state here, at the outset, that to cultivate the strawberry successfully, is but a simple matter. To grow large, handsome, fine flavored fruit in abundance, it is not necessary to employ a chemist to furnish us with a long list of specifics, nor even to employ a gardener by profession, who can boast long years of experience. Any one who can manage a crop of corn or potatoes, can, if he will, grow strawberries. We may say this much by way of encouragement, because so much has been said in regard to various methods of culture, and various applications and specifics, that some people have become persuaded that a vast deal of learning and experience are necessary to produce large crops of strawberries.

Judging from what we have seen, we believe that the great cause of failure is negligence. The strawberry plant—not like a tree, which, when once set in its place, remains there—is constantly sending out shoots (runners) in all directions, taking possession of the ground rapidly around the parent plant. In a short time, therefore, unless these runners are kept in check, the ground becomes entirely occupied with plants, the parent plant becomes exhausted, and the ground can no longer be stirred or kept in such condition as is necessary to sustain their vigor. The result is, the ground is covered with a mass of starved and weakly plants, choking up each other in a hard, uncultivated soil, and producing a sparce crop of small, insipid berries, that dry up on their stocks before they are ripe, unless it happens to rain every day.

The constant stirring of the soil around the plants, is one thing which in our climate is absolutely necessary to successful cultivation; and any system of culture which precludes this, or throws any obstacles in its way, is defective. If any one will examine his strawberry beds, he will find the plants along the outer edges of the beds, where the soil has been kept clean and fresh by the frequent use of the hoe, vigorous and healthy, with luxuriant dark green foliage, and large, fine fruit; while in the interior of the beds, where the plants have grown into masses, and covered all the ground, so as to prevent its cultivation, they are yellow and sickly looking, and the fruit poor and worthless. This we see in our own grounds, and everywhere that we find the plants growing under similar circumstances. Does not

this show the necessity of cultivation close around the plants? No matter how deep we may trench the soil, or how unsparing we may be with manures, or how copiously we supply moisture, this cultivation cannot be dispensed with, if we aim at producing fine fruits and abundance of them. "But," says our cultivator, "by allowing the ground to be all occupied with plants, we save all the labor which would be consumed in removing the runners, and we avoid the necessity of applying a mulching to keep the fruit clean." Very true, you save some expense; but what do you get in return? A crop of fruit not fit for the table —small, insipid, and so dirty, if a heavy rain occurs about ripening time, that it must be put through the wash-tub before it is placed on the table. It is possible that the market grower may be able to produce berries of this kind at a less price per quart than he could by a careful, cleanly and thorough system of culture; but then he can expect to sell such fruit only when no better can be had. We have doubts, however, as to the economy of bad culture in the long run. If a proper system were adopted at the outstart, and followed up with regularity, it would not be found so profitless or expensive. In this, as in every kind of culture, a system is absolutely necessary. A certain routine of operations, which are easily executed if taken at the right time, become burthensome when deferred, and being so, they are not unfrequently put off altogether. Precisely thus is it that strawberry beds are neglected, both in market gardens and private gardens, until they are grown wild beyond hope of recovery. Now, we say to every one who wishes to cultivate strawberries, resolve at once upon abandoning the "lazy-bed" system; and if you cultivate but a square rod, do it well.

We advise planting in rows not less than two feet apart, unless ground be very scarce, when eighteen might suffice, and the plants to be twelve to eighteen inches apart in the rows. In extensive field culture, the rows should be at least three feet apart, in order to admit the use of the plow or cultivator between them, or even the passage of a cart to deposit manures or mulching materials. The spade and wheel-barrow are too costly implements for an extensive culture where labor is scarce and high, as with us. From the time the plants are set until the fruit is gathered, the runners should be cut away as fast as they appear, and the ground be kept clean of weeds, and well worked.

In the fall, or before the setting in of winter, a mulching of half-decayed leaves or manure, should be placed between the rows, coming close around the plants, leaving the crown or heart uncovered. This mulching prevents the plants from being drawn out and weakened, or destroyed by freezing and thawing in winter. We have sometimes covered the entire beds, plants and all, with newly-fallen leaves, and by raking them off early in spring, the plants came out in fine order. In the same way we have covered them with clean wheat straw, and found it to answer as well. In all the northern and western States some winter protection is of great service, although not indispensable. In field culture, the earth might be ploughed up to the plants, as is done with nursery trees, in such a manner as to afford considerable protection against the action of frost on the roots.

As soon as the fruit begins to attain its full size, and approach maturity, the spaces between the rows which up to this time have been under clean culture, should be covered with straw, litter or moss. This will serve the double purpose of keeping the fruit clean and retaining moisture in the soil. When copious supplies of water are applied, which should be always done when practicable, stable litter is a good mulching, and the water poured on it carries down with it to the roots of the plants the fertilizing materials which it contains.

The application of water in abundance we must again recommend to all who want the finest fruit. Rains are very good, but they cannot be relied on, and they always deprive the fruit of its flavor, while artificial waterings do not. On this account the French gardeners say that the strawberry "prefers water from the well to water from the clouds." It is supposed that the electricity which pervades the atmosphere during our summer rains, affects the flavor of the fruit.

When the crop has been gathered, the mulching material between the rows should be removed, and the ground be forked over, so that if plants are wanted to form a new plantation, their growth will be encouraged. The same plants should not be relied upon for more than two crops. The labor of making a new bed, save the trenching of the soil, is no more than that of planting a plot of cabbages.

As to the season for planting, we would recommend the spring for large plantations, because then there is comparatively no risk of failure. The amateur, however, who wishes only to plant a bed in his garden, may do it at any time he can procure good plants. If the growth of runners is encouraged in July, after the fruit is gathered, well-rooted runners may be had about the first of September, or it may

be sooner. The young plant nearest the parent should always be chosen, if possible. In planting during the month of August or September, rainy weather should be chosen, if possible; but it may be safely done, even in a dry time, by using water freely. Water the plants well before taking them up, as it injures the roots very much to draw them out of dry ground; then water the soil thoroughly where they are to be set, before planting. A sprinkling will be of no use: it must go down deep, as a heavy rain would. Set the plants in the evening, and shade them a few days with boards set on edge, forming a sort of roof over them. Mulch them, too, with short litter; and it will be well, if the plants be large, to remove some of the lower and larger leaves. Planting can be done safely in spring until the plants are in blossom—and all summer, for that matter, with proper care.

We have thus briefly sketched the principal operations in strawberry culture; not in regular order, it is true, but we hope so as to be understood. We are not writing a book, and cannot enter into all of the details with minuteness. We have said nothing of the soil, and will only remark that any good garden soil, fit to produce culinary vegetables, or any farm land, fit for grain or root crops, will produce good strawberries; but it must be deeply plowed, or trenched, say twenty inches at least, and liberally manured with well-decomposed stable manure or good compost. The quantity of manure must vary according to the degree of natural fertility of the soil. In one case, a quantity equal to six inches deep all over the surface would not be too much; while in other cases, half that would be enough.

We would prefer not to make a strawberry plantation twice on the same ground; but when circumstances render it inconvenient to change, rows of young plants might be set, or allowed to establish themselves from the runners, between the old rows, which can then be turned under with the spade, and will serve to enrich the ground.

Now as to varieties. On this point there is a great diversity of opinion, and we cannot hope to name a list that will be acceptable to a large number of persons, at least in many parts of the country. Planters must have recourse to the best experience to be found in their respective localities; in the meantime we shall express our opinion of a few varieties, and let it go for what it is worth.

It happens that in this country the greater number of our most productive varieties have but one set of the organs of fecundation. A fruitful flower must have both pistils and stamens perfectly developed. The stamens are regarded as the male organs, and the pistils the female. When a flower has well-developed pistils, but no stamens, or imperfect ones, it must be impregnated by the pollen of other flowers. Where a flower has no pistils, or has imperfect ones, it is utterly barren. A large number of our best American varieties—such as Hovey's Seedling, Burr's New Pine, McAvoy's Superior, Moyamensing, &c.—are wanting in stamens, and therefore foreign impregnation is necessary. In Europe this distinction is not observed to any extent, and all the English and continental varieties, as far as we know, are hermaphrodite. In this country very many of them fail from an imperfect development of the pistils, and are consequently barren, owing doubtless to the effect of climate and culture. It is not necessary that the two should be in close proximity; they are sure to get impregnated if in the same garden, as the pollen is carried about from one flower to another by insects. The beds of the different sorts may be kept entirely separate. Mixing them up is a bad way, as the one outgrows and overruns the other, and they become so confused that nothing can be done with them. On this account many have grown tired of keeping up the distinction, and have resolved to cultivate hermaphrodite sorts only.

The following varieties are the best on the long lists of those we have tested on our own grounds:

Pistillate.—Burr's New Pine, Jenny's Seedling, McAvoy's Superior, Hovey's Seedling, Moyamensing, Monroe Scarlet, and Crimson Cone. The finest flavored variety among these, is Burr's New Pine; the largest, Hovey's Seedling; and the finest and best for market, Jenny's Seedling and Crimson Cone. Hovey's Seedling, in Western New York, and in many parts of the west, is a very moderate, and in many cases a poor bearer. We have had no crop so heavy this season (when all bore well) as on the Monroe Scarlet.

Staminate, or Hermaphrodite.—Large Early Scarlet, Walker's Seedling, Iowa, Boston Pine and Genesee. All these may be grown successfully for market, and are good without being first-rate in flavor. We think much more of Walker's Seedling now than we did last season. It is very hardy, and a great bearer. It appears to be a seedling from the Black Prince. The Boston Pine is the most uncertain on the whole list; without good soil and culture, it fails entirely.

Beside the above list, we would recommend

to amateurs, who are willing to bestow thorough cultivation and care on their plants, the British Queen, which, when well grown, surpasses in size, beauty, and excellence, any we have named. The Bicton Pine—a large and beautiful white variety, which ripens late. We have had a fine crop of it this season, although our plants being set last year were seriously injured last winter. Like all the foreign sorts, it needs protection, and a deep, rich soil, with abundant moisture. The Wood Strawberries—red and white—bear most profusely in all places, and last a long time; besides, they part freely from the calyx, and are therefore easily and rapidly picked, and their flavor is rich and agreeable to most people. In addition to these we must mention the Bush Alpine (having no runners)—perpetual bearers, if kept liberally supplied with moisture. They deserve much more extensive cultivation than they now receive. With their assistance, we may enjoy strawberries not one month only, but four months.

To KEEP SILK.—Silk articles should not be kept folded in white paper, as the chloride of lime used in bleaching the paper will probably impair the color of the silk. Brown or blue paper is better; the yellowish, smooth Indian paper is best of all. Silk intended for dress should not be kept long in the house before it is made up, as lying in the folds will have a tendency to impair its durability by causing it to cut or split, particularly if the silk has been thickened by gum.

Thread lace veils are very easily cut; satin and velvet being soft are not easily cut, but dresses of velvet should not be laid by with any weight above them. If the nap of thin velvet is laid down, is is not possible to raise it up again. Hard silk should never be wrinkled, because the thread is easily broken in the crease, and it never can be rectified. The way to take the wrinkles out of silk scarfs or handkerchiefs is to moisten the surface evenly with a sponge and some weak glue, and then pin the silk with some toilet pins around the shelves on a mattrass or feather bed, taking pains to draw out the silk as tight as possible. When dry, the wrinkles will have disappeared. The reason of this is obvious to every person. It is a nice job to dress light colored silk, and few should try it. Some silk articles should be moistened with weak glue or gum water, and the wrinkles ironed out by a hot flat-iron on the wrong side.—*Scientific American.*

CHEAP FURNITURE AND ORNAMENTS FOR ROOMS.

In the article on cheap furniture in the last number, the following paragraph was omitted:

Pretty window seats, ottomans, &c., are easily made by taking a box of suitable size and shape, turning it bottom up, cushioning with cotton, hair, moss, hay, or old woollen rags, and covering it with remnants of carpeting or cloth to suit the other furniture. Almost every family has some boxes that might thus be turned to good account, making inexpensive seats that the family will greatly prefer to chairs, and giving an air of comfort and competence that will make home much more attractive. Do not make the seats too high or narrow, or the cushions too hard, and if for common use cover with some modest color that will not show dirt readily. The boxes can be made with lids and hinges to hold wood, clothes, or other articles, if desired.

Mrs. Cutler and others have from time to time given descriptions of ornamental articles that could be made at home easily; to these we have a few to add. At the exhibition of the American Institute in New York, last fall, was a very beautiful centre table—home made. A thick plank was cut into a circle of the required size and mounted upon a standard terminating in three feet. This was entirely covered with split acorns, put on in various fanciful designs, laid in glue, paint, or other cement, and the whole covered with two or three coats of varnish. The effect was very beautiful indeed. We have seen old picture frames, fitted up in the same style, that were really elegant.

An equally pretty and more delicate mode of ornament is made from the fresh cones of the pitch pine. Separate the scales and put on as you would acorns, overlapping the scales as they are in nature. Pretty flower vases, picture frames, &c., can be cut from pasteboard, then, if the cones are soaked in warm water, the scales can be sewed on with stout thread, then let the whole be varnished before the cones become shrivelled, and they will appear more plump permanently.—*Mass. Ploughman.*

The following is said to be a sure process to get rid of caterpillars. With a common gimlet we bored a hole into the body of a tree, some two inches deep, perhaps, which we filled with sulphur, and then plugged up the hole. In a short time, say forty-eight hours, they were seen crawling about the yard, and in less than six days not one was to be found remaining on the tree. This is a simple but sure way.

From the Richmond Whig.

HOW TO SECURE WHEAT IN WET WEATHER.

Observing, in the Richmond Whig, a communication from Lunenburg, which speaks of the great destruction of wheat in that part of the country, from wet weather, I am induced to give to the public my experience, in regard to the management of a wheat harvest under such circumstances—this embraces a period of 40 years or more. The communication from Lunenburg states, that in many instances, the wheat was suffered to remain on the ground four or five days—this was a great and fatal error, as I can assert from the most ample and satisfactory experience.

About 30 years ago, when I lived in the county of Essex, upon the Rappahannock river, there was the finest growth of wheat I ever remember to have seen but once. The rain commenced with the harvest, and continued during the whole of it, and for some days after it terminated. I felt myself perfectly at a loss how to proceed. But having an intelligent and experienced Overseer, consulted him as to what had best be done. He recommended, that I should contrive to cut the wheat, regardless of rain, and put it up immediately in cocks of about five bushels, securing the tops, by spreading a sheaf of wheat upon the top of each, and not to open or disturb them, until all appearances of rain had ceased. I readily adopted his plan, and did not disturb the cocks until the wheat was removed to the barn for thrashing. When I commenced moving the wheat, I found the outside of the cocks as green as a meadow, and so much sprouted that most of it was lost. But although the straw, on the inside, was mouldy, the grain was in a perfect state of preservation, and the crop, both as to quality and quantity, the best I ever remember to have made; and I have always pursued the same method since, and with equal success; nor have I ever dreaded a wet harvest since. The greater part of the crop of which I speak, was cut when the rain was pouring down in torrents, and put up immediately as I have said, and not again disturbed until it was removed to the barn yard. My neighbors pursued a different plan; cutting and putting up their wheat as I did. But when the sun would come out, (as it frequently did,) they had their wheat shocks opened to dry; thus frequently subjecting the whole of their wheat to the action of the sun, and having to put them up again hurriedly, before they were thoroughly dried, they were loosened so much, as to be thoroughly penetrated by the rain and spotted through and through. Whereas my wheat having been put up, after being thoroughly soaked by rain, and not opened again, was so compact, that neither the rain, nor the rays of the sun, could penetrate far into the shocks, and I found the wheat on the inside uninjured, and of most excellent quality. And I will add, that to secure a crop of wheat, under such circumstances, it is better not to tie the wheat in bundles, as it packs much closer when not tied. Considering the information of very great importance to farmers, and believing that it would be more apt to influence those acquainted with me than an ananymous communication, I subscribe my name to it.

William Garnett,
Formerly of Essex Co., Va.

Convenient and wholesome Food.—A very cheap, convenient, and palatable dish may be prepared with the common pilot bread, which is a hard, dry cracker, made of flour and water. These can be purchased by the barrel at a price but a little higher than flour, pound for pound, as they are generally made by machinery, and the cost of making and baking is but trifling when it is done on a large scale. We see the price of pilot bread is quoted in this market at less than half a cent per pound above good flour, and as they are nearly as dry as flour they are about as nutritious. They will keep longer than flour without deteriorating or becoming stale. They can be used in a variety of ways, such as putting them into stews of meat, or meat and potatoes; they improve "hash" materially, and are a good substitute for "crust" in pot pie, having the advantage of always being light and wholesome. For an ordinary, every day dish, put them into an oven after the bread is removed, or into a stove oven, and let them dry thoroughly; then break them up and pour boiling water over them, and add a little salt, and butter, cream or milk. We know of no more easily prepared, more wholesome, and more palatable dish than this for the breakfast, supper, or even for the dinner table.

Working animals of every kind should be treated with care and attention. Warm stables, properly ventillated; good fare, regularly dispensed to them; well littered stables, currying and rubbing down night and morning, and water three times a day, are great promoters of health,—and at no season of the year is such treatment and care more needed than at this, when the poor animals have to perform their daily labors amidst every degree of inclement weather.

HOW WILD GEESE ARE TAKEN.

"The way they catch geese," says the Buffalo Republican, "on the western waters, is sufficiently wonderful, without at all taxing the incredulity of any one. They are very fond of a small and very active eel, armed with sharp head and teeth, whose habits insist upon its swimming very near the surface of the water. It is very seldom the geese can get hold of this choice morsel, and when they do, they do they have a grand jollification over it. This eel the hunters use as a bait for their geeseships. A short time since, two hunters went out to catch wild geese. One hunter laid down in his canoe with a trout line attached to his wrist, and on the other end, in the water, was tied the nimble, sharp-headed eel before spoken of. The canoe floated slowly through the marshes, and came gradually among a large flock of geese, and the eel swimming along close to the surface. One venerable *bon vivant* of a goose gobbled up the eel, like a flash; also the eel had made its way through the body of the epicure, and lo! the goose was 'on strong.' Another goose, afflicted with a luxurious palate, swallowed the eel, but without any particular satisfaction, as the eel, hardly noticing an obstruction, travelled through the 'goose grease' with scarcely an effort. And so this identical eel travelled and travelled, until seventeen geese were on the string, and our scientific friend, thinking he had been fortunate enough, commenced hauling them into the boat. But, wonder of wonders, the seventeen geese rose upon their wings as one goose, and before our friend of the canoe could make a will or say a prayer, he was lifted bodily from the canoe, through the combined efforts of the seventeen geese attached to his wrist, and ere he was aware of it, was thirty feet above the water. A friend of his on shore, who saw the difficulty, and his riffle being fortunately loaded, shot off the string and rescued his friend. So, instead of wild goose our hunter got cold duck; and, although he fishes no more for wild geese with eels, he is prepared to affirm, asseverate or swear to the truth of the foregoing."

Remedy for Gapes in Chickens. — A correspondent says, "Tell those of your readers who are interested in raising chickens, that a small pinch of gunpowder given to a chicken with the gapes will effect a sure and complete cure in from one to three hours time, and leave poor chick healthy and hearty. I speak from what I know, having tried the remedy with perfect satisfaction."

WASH YOUR OWN LACES.

The difficulty of getting laces washed right, especially out of a great city, is very great. Every lady, therefore, should know how to wash her own thread lace. If any fair lady is ignorant of this art, we can teach her in a very few words. Let her first rip off the lace, carefully pick out the loose bits of thread, and roll the lace very smoothly and securely round a clean black bottle previously covered with old white linen, sewed tightly on. Tack each end of the lace with a needle and thread, to keep it smooth, and be careful in wrapping not to crumble or fold in any of the scollops or pearlings. After it is on the bottle, take some of the best sweet oil, and with a clean sponge wet the lace thoroughly to the inmost folds. Have ready, in a wash-kettle, a strong lather of clear water and white Castile soap. Fill the bottle with cold water to prevent its bursting; cork it well and stand it upright in the suds, with a string round the neck secured to the ears or handle of the kettle, to prevent its knocking about and breaking while over the fire. Let it boil in the suds for an hour or more, till the lace is clean and white all through. Drain on the suds, and dry it on the bottle in the sun. When dry, remove the lace from the bottle, and roll it round a wide ribbon block, or lay it in long folds, place it within a sheet of smooth white paper, and press it in a large book for a few days.

WHITEWASH FOR OUTHOUSES AND FENCES.

Take a clean barrel that will hold water. Put into it half a bushel of quicklime, and slack it by pouring over it boiling water sufficient to cover it four or five inches deep, and stirring it until slaked. When quite slaked, dissolve it in water, and add two pounds of sulphate of zinc, which may be had at any of the druggists, and one of common salt, and which in a few days will cause the whitewash to harden on the wood-work. Add sufficient water to bring it to the consistency of thick whitewash.

To make the above wash of a pleasant cream color, add 3 lbs. yellow ochre.

For fawn color, and 4 lbs. umber, 1 lb. Indian red, and 1 lb. lampblack.

For grey or stone color, add 4 lbs. raw umber, and 2 lbs. lampblack.

The color may be put on with a common whitewash brush, and will be found much more durable than common whitewash.—*Scientific American.*

SHORT-HORNS, THEIR PEDIGREES, AND MILKING POWERS.

In my last letter to you on the subject of short-horns, I mentioned that I had a cow in calf to the Duke of Glo'ster (11382.) On Saturday last, the 9th of June, she produced a fine roan calf, which, to my great satisfaction, proved to be a bull. As the births of thorough-bred foals are recorded as they occur, so it would not be uninteresting if the births of the highest bred calves of the short-horn race were chronicled in like manner. In modern times, the latter have brought prices quite as high as the former, and they certainly are as well worth them, since they conduce in an equal degree to the improvement of their race. In order to sustain the claim of my calf to the honor of his name appearing in your columns, I add the pedigree of his dam: Ferret-Roan, of 1849 (bred by Mr. G. Bell,) by 4th Duke of York (10167); dam, Fancy by Duke of Northumberland (1940); grandam, Fanny by Shorttail (2621); gr. g.-dam. Fletcher the 2d by Belvidere (1706); gr. gr. g.-dam, by a son of Young Winyard (2859), descended from Mr. J. Brown's old Red Bull.

It will be evident to any one conversant with the pedigrees of Mr. Bates' herd, that there is much very close breeding in that of my calf; and yet he far exceeds any calf I have bred this year in size and stoutness; in fact, his size is considerably above the average. This is another confirmation of the truth of Mr. Bates' view, that although to breed in and in from bad stock was, to use his own expression, "ruin and and devastation," yet that the practice may be safely followed within certain limits where the animals so related are descended from first-rate parents, and are themselves of undeniable excellence. In this, as in every other point, success or failure depends upon the judgment of the breeder. It is, however, so much more common for men to over-estimate the merits of their own stock, than to rate them too low, that it cannot but be useful to breeders carefully to guard against this tendency in themselves. It is certain that he who keeps his eyes open to excellence, wherever it exists, and avails himself of it whenever it is within his reach, will in the end have a better herd than he who, taking it for granted that his stock is perfection, never troubles himself to look beyond it. The history of short-horn breeding affords abundant evidence of the truth of this maxim, from the time when Mr. C. Colling purchased Hubback, which though of unknown pedigree, is an ancestor of many of our best short-horns, down to the introduction of Cleveland Lad by Mr. Bates into his herd.

I think that Mr. Horsfall, in his interesting record of his dairy practice, does not state whether he adheres to any one breed of cows, or whether he purchases such as he conceives best adapted for milking, irrespective of any other consideration. It would be both useful and interesting, however, if he and other agriculturalists would state the results of their experience of the milk-producing powers of the principal breeds of cattle in the kingdom. As regards the short-horns, there is, I believe, a prevalent notion that they are indifferent milkers. Although facts may seem to lend a certain degree of support to this opinion, it is nevertheless a mistake which an impartial investigation must dispel. In the first place, the principal ancestors of the improved short-horns—the old Holderness cows—were, and are still, the deepest milkers in the kingdom. Is it likely, that these descendants should wholly have lost this valuable property? It may, indeed, be alleged that the celebrated cross with the Galloway cow resorted to by Mr. C. Colling, may have produced injurious consequences in this respect. I think that the effects of this "alloy," whether for good or the reverse, have been over estimated, inasmuch as the cow "Lady," from which this family is descended, had only one-sixteenth of the Galloway blood in her veins. As Favourite (252) was quite unconnected with the "alloy," as were also several other celebrated originals of the short-horns, it is evident that the union of them with the cow Lady would give one thirty-second of that cross in the next generation. Except, therefore, in those herds where the "alloy" has been purposely followed out, it may be estimated that from one fortieth to one-fiftieth of Galloway blood is the utmost proportion which exists in modern short-horns, and it is obviously insufficient to obliterate any well established property belonging to the original race.

But leaving the domain of speculation to pass to that of fact, are the improved short-horns good dairy cows or not? From a considerable mass of evidence which I have collected to prove the affirmative of this proposition, my limits here only allow me to refer to the pamphlet of the Rev. H. Berry, who gives a long list of cows of the highest pedigree, with the measured quantity of milk given by each. Several of these gave 24 quarts daily; one 32, another 36, and one as much as 38 quarts. From this authentic testimony as to the early character of the breed, I must pass on to the valuable article of Mr. Dickenson, (Journal of the Royal Agricultural Society, vol. xi.) on the farming of Cumberland, and the perusal of which I recommend to all who are interested in this subject. He mentions a high-bred cow called Kate, which gave 13 quarts at a meal, and from this quantity yielded at the end of a week 26 lbs. of butter. About the fact itself there can be no doubt, resting as it does on the testimony of the owner, Mr. Fisherson, of Harker Lodge. Another cow mentioned by Mr. Dickenson produced in 32 weeks 373 lbs. of butter, being at the rate of 11 2-3 lbs. per week.

My own experience on the subject is, that while their milking powers are at least equal to those of any other breed, they possess over all others the great advantage of keeping their condition on food on which common cows would starve. I am far from maintaining that all short-horns are good milkers. Two causes have contributed to injure them in this respect; 1st, that being a point to which many breeders are

indifferent, they have selected their originals and continued to breed solely with reference to symmetry, size, and the propensity to early maturity. As therefore not only good qualities but the lack of them descend, it cannot be surprising that many short-horns give but little milk. 2d. From the emulation of breeders to show the finest animal at the earliest age, a system of pampering is begun at birth and carried on until the animal is either sold or slaughtered, which, from the premature development of fat which it produces, tends to depress every other vital function. This system, unfavorable as it is for allowing the milk producing powers to develop themselves in any individual subjected to it, is fatal when pursued for generation after generation. After a time, "function," to use the words of Dr. Playfair, "begins to re-act on organization," and a tribe of bad milkers is formed, among which individuals may even occur which will give no milk. Most sincerely do I wish that the forcing system was utterly exploded, injurious as it is alike to the short-horns themselves and their reputation. If they will not thrive on the ordinary keep of other breeding stock, the sooner they are abahdoned the better. But it is their pre-eminent merit that they are the best thrivers in existence. As milkers, when well selected and rationally treated, it is not easy to find cows which will excel them. Sometimes even they will at one and the same time give large quantities of milk and carry a great deal of flesh, although this is not in general desirable.

When I think of the number of good milkers I have known among the short-horns, and remember that it was an original charateristic of the tribe, it appears to me of great consequence, considering the national importance of dairy produce, to use every exertion to render so valuable a quality permanent. Good milkers are not over abundant among any variety of the vaccine species, and are most scarce among ill-bred mongrels. Mr. Atten, of Longcroft, had two or three years a white cow of the name of Penguin, descended from the stock of Mr. Robertson, of Ladykirk, which was an extraordinary milker. Colonel Kingscote's cow Honeysuckle, is remarkable even in his herd, where this point is so successfully cultivated, for the same quality. Mr. Sainsbury is strenuous in attaining high excellence here as in every other point. Among my own cows, which are milking better this year than I ever knew them before, I may be allowed to name one which at nine years old is a most extraordinary milker, viz., Jessy, bred by Mr. R. Bell. She is by Napoleon (10552), dam by Cleveland Lad (3407), &c., and has bred a prize heifer. She may therefore, be cited as a proof that it is possible to combine the quality for which I am contending with the best short-horn blood.

In conclusion, I may add that I am preparing for publication an article on the breeding of short-horns, and shall therefore feel obliged for any communications from breeders containing facts in reference to this or other points worthy of notice. I shall also be glad to show my small herd to any breeder who may happen to be visiting this neighborhood. They are as hardly kept as those of any neighboring farmer, and as my object is to make cheese, the calves are weaned from new milk at an earlier age than is usual among the breeders of short-horns.

[*Willoughby Wood, London Agr. Gaz.*

PRESERVING FRUIT BY HERMETICAL SEALING.

We are glad to see that year by year the old practice of making large quantities of preserves in every family is declining, and sweetmeats are giving place to a more simple, healthful, and delicious article, namely, fresh fruit preserved in its natural state, by perfectly excluding the air.

Fresh peaches, strawberries, &c., are certainly a greater luxury in mid-winter than the same fruits preserved with sugar, while the expense is less, and the amount of skill required, no greater.

The self sealing tin cans, now extensively introduced, are far superior to the old kind, as the house-wife can put them up quickly and safely, without the aid of a tinner; they are as easily opened as closed, and the same cans will do for successive years. These self-sealing cans are made in different ways. Some are sealed by screwing a cork upon a rubber compress, and applying melted beeswax, others by warming the cover and pressing it into a rim of cement, which surrounds the top of the can, others again are sealed with a peculiar kind of soft solder.

The chief agent in the work of preservation is *heat*. If after the application of heat for a certain time, (by which process the air is expelled,) the article be sealed up hermetically, it will remain unchanged for an indefinite period. We will briefly describe the method of putting up fruits in this manner, as given by several manufacturers:

First, select good fresh fruits or vegetables. Stale and fermented articles can never be preserved. Vegetables decomposing quickly, such as green corn, green peas, asparagus, should be preserved within six hours after being picked, particularly in warm weather. Berries always within twenty-four hours. Peaches, quinces, apples and pears should be peeled, and the seeds removed before preserving.

Vegetables should be partially cooked first. Such as corn, peas and tomatoes should be boiled a half hour; asparagus, a quarter hour. To the vegetables, add a half pint of the water they are cooked in, to the quart.

Fill the can with ripe fruit, adding, if desired, a little sugar—simply enough to render the fruit palatable—and set it in a vessel of water, (warm or cold.) Let the water boil, and continue boiling until the *fruit is well heated through*—say for half an hour. Direction has been given to simply let the water boil, but such direction is defective, as at this time the fruit in the centre of the vessel will be scarcely warmed. Should the vessel be then sealed, fermentation will take place. The *heat must thoroughly penetrate the contents of the vessel.* As soon as the fruit is sufficiently heated, seal the can, and the work is done.

Another way is to make a syrup of two pounds of sugar for every six pounds of fruit, using half a pint of water for every pound of sugar. Skim the syrup as soon as it boils, and then put in your

fruit and let it boil ten minutes. Fill the cans, and seal up hot. Some make a syrup of half a pound of sugar to every pound of fruit—and some use only a quarter of a pound of sugar to a pound of fruit—while some use no sugar at all.

To keep peaches, pare and cut them up. If thrown into cold water, they retain their firmness and color. Heat them in the cans as above—or, boil them ten minutes in a syrup. In this way, strawberries, raspberries, cherries, plums, peaches, &c., &c., may be kept for any length of time, in the same condition they were sealed up, and with their flavor unchanged. For small fruit, it is best to make a syrup without water, and boil the fruit in it for only a few minutes.

Mr. Doddridge of this city, has experimented largely with the use of different kinds of cans, and gives the following instructions:

Peaches, quinces, pears, apples, should be peeled, quartered, and the seed removed before preserving. They should be placed in a kettle and brought to a brisk boil, with as little stirring as will prevent them from scorching, to avoid breaking the fruit. *The fruit should be kept boiling while the cans are being filled.* Tomatoes should be boiled and the skin taken off, and then placed in a kettle and brought to a boil, and *kept so while filling the cans.*

Fill the cans quickly to overflowing from the boiling material in the kettle, and immediately place on the cap, (which should be warm,) fitting it closely to the shoulder of the neck of the can. Blow or wipe the moisture out of the gallery, which the heat of the can will in a little while dry off. This takes less time than filling with cold fruit, and heating the can up in boiling water.

Fresh stewed fruits of all kinds may be kept in these vessels. It will only be necessary to stew the fruit as for the table, adding the amount of sugar required to make it palatable; fill up the vessel with the hot fruit, and seal at once. All ripe fruits preserved in this way, will be found as fresh in the winter season, as if just taken from the tree and stewed.

How to know that the Can is Hermetically Sealed, and that the contents will keep.—The contents, as soon as they cool will slightly shrink, leaving a vacuum, and the top and bottom of the can will become concave, from the pressure of the external air. If the concave condition of the top and bottom remain, all is right. But if they swell out fermentation has commenced. As soon as this is perceived, open, and heat the contents, as at first.

These directions apply to every kind of can, the only difference being in the modes of sealing, and for these particular directions always accompany the cans. These cans are manufactured and sold extensively in all the large cities, and we presume at other places also. The quart cans are sold at $1.50 to $2.25 per dozen, the two quart cans at $2.50 to $3 50. The cement to be used with the self-sealing cans is furnished gratis with the cans, but as an additional supply would be wanted in successive years, we will give the recipe for its manufacture, as furnished by Mr. Doddridge:

Take ¾lb. Rosin, ¼ lb. Beeswax, and 6 oz. Shellac; boil, and stir tgether.

AN ENGLISH EXPERIMENTER ON WHEAT.

We have been much interested in reading a pamphlet published last year, in London, entitled "A word in season; or how to grow wheat with profit. Addressed to the Stout British Farmer."

The writer, whoever he may be, bases his mode of cultivation on Tull's system of deep and thorough pulverization of the soil and using no manure. This system, as far as it goes, is a good one. The finer you can get the soil pulverized the better. It is a point too much neglected by our farmers, many of whom seem to act on the opposite extreme from Tull's method. Tull depended wholly on pulverizing the soil and no manure—they depend wholly on manure and no pulverizing of the soil. Now we recommend both. Pulverize as much and as fine as you can, and manure all that you can. The author of these experiments claims to have improved on Tull's method by going deeper than he did. Tull never dug deeper than the soil—but he dives into the subsoil and brings up, from the depths to which he goes, all the fertilizing elements which he contends lies imbedded there, waiting for man to seize upon them and bring them into action. He does this by spading the land two spits deep—that is a depth equal to twice the length of the spade blade. He goes *two feet* deep. He contends that clay loams contain an almost inexhaustible supply of the mineral matter necessary for the growth of wheat, and that these materials, when the clay loam is perfectly prepared and brought to the action of the sun, dews, rain, and air, supply to every one the requisites necessary for a large wheat crop. By means, says he, "of the deep stirring, uplifting fork, in lieu of the glazing and level plough, I bring up those mineral treasures, inch by inch, to be disintegrated and decomposed by the summer fallow; exposing them gradually year after year, till I reach the limited depth of two feet, beyond which it is neither needful nor convenient to go."

Instead of sowing broadcast as we do, he drills or sows it in rows, leaving intervals of three feet between his cluster of rows. That is, he has a bed two feet wide on which are three rows of wheat a foot apart and then an interval of three feet between these, which gives a space of five feet breadth to every three rows of wheat, thus:

1 ft. space.	1 ft. space.		1 ft. space.	1 ft. space.
2 feet.		3 feet. interval.	2 feet.	

These rows (being winter wheat,) he sows in September. These three feet spaces are to be spaded or trenched, as soon as the rows of wheat are up, to within three inches of the wheat. The spaces between the wheat are hoed until the blades spread so as to meet. This mode of sowing the seed in the drill, is peculiar. "For my three rows of wheat, I make channels with a three wheeled presser, the edges of which are sharper than usual, in order to cut through the land, to the depth of three inches. Boys or men follow, and drop single grains in the channels, about two or three inches apart. The seed thus lying deep on a hard bed, and the land being well drained, I am not afraid of the plants being bit by the frost; so I cover the seed and close up the channels with the rollers."

He says, that he has had wheat three successive years on the same acre of land, raised by this process, without manure. That of the first year he

took no account of, but accurately measured the produce of the two last years, and the yield was the same in both cases, namely: four quarters and two bushels. An English "quarter" we believe, is eight bushels, the yield therefore, was *thirty-four* bushels!! certainly, a great yield for an acre. This yield he attributes to "*that unsown, well tilled interval of three feet, between each tier of rows.*"

The writer then goes on to state that, being so well satisfied with this mode of culture, he took a four acre field that had been pretty well exhausted, and littered it in 1850-51, in the same way. The wheat was sown in October. The whole cost of culture, including interest and taxes, was $73.62½. He obtained in 1855, from this October sowing, twenty quarters and a half of clear wheat—allowing eight bushels for a quarter, is 164 bushels, or over *thirty bushels* to the acre! He estimates the wheat worth $209.25, and the straw worth $80—being eight tons at $10 (English price) per ton. This left a total profit of $185.75 on the operation—a pretty good job, there being, as he states, one moiety of each of these four acres in wheat, and the other moiety fallow—the land exhausted—no manure—little more than a peck of seed to the half-acre—and yet the yield of 164 bushels or over forty bushels to the acre; and for the encouragement of others, he adds: there was nothing whatever in these operations which were so successful here, to prevent their application to any extent elsewhere.

These things are worth thinking over, and the principles worth examining into. There is one obstacle, however, in our way, which will hinder our following, in this country, his advice and example, and that is, the difficulty of getting men at reasonable prices, to spade up and till the intervals as he did. How far the new "digger" will act as substitute for this, remains to be seen. We sent to England to obtain this pamphlet, where it had gone through thirteen editions. We may refer to it again at some convenient time.

SALT AND GUANO.

The following article, from the Mark Lane Express, contains some facts which should be understood. Large quantities of salt, similar to that named below, may be purchased from tanners, repackers of pork in the city of New York, and elsewhere.

Some experiments, lately reported upon the action of common salt when mixed with guano are instructive as well as suggestive of further examinations. It is well known that guano, when used as top dressing, is best applied in rainy weather, and that its ammonia is rapidly dissipated by exposure to the sun and winds. Again, in top-dressing cereals with either cubic petre or guano, it has been found advantageous to mix the guano with a certain proportion of common salt, the salt being found to preserve that hardness of the straw which guano has a considerable tendency to weaken.

To ascertain the extent to which the exposure of guano in a dry atmosphere diminishes the amount of its ammonia, and the effect produced in *fixing* that ammonia by an addition to it of half its weight of common salt, was the object of M. Barral, the editor of the Journal d'Agriculture Pratique, in some experiments which are reported in the last number of the Edinburg Qaurterly Journal of Agriculture. We need only describe in his words one trial, where he observes:

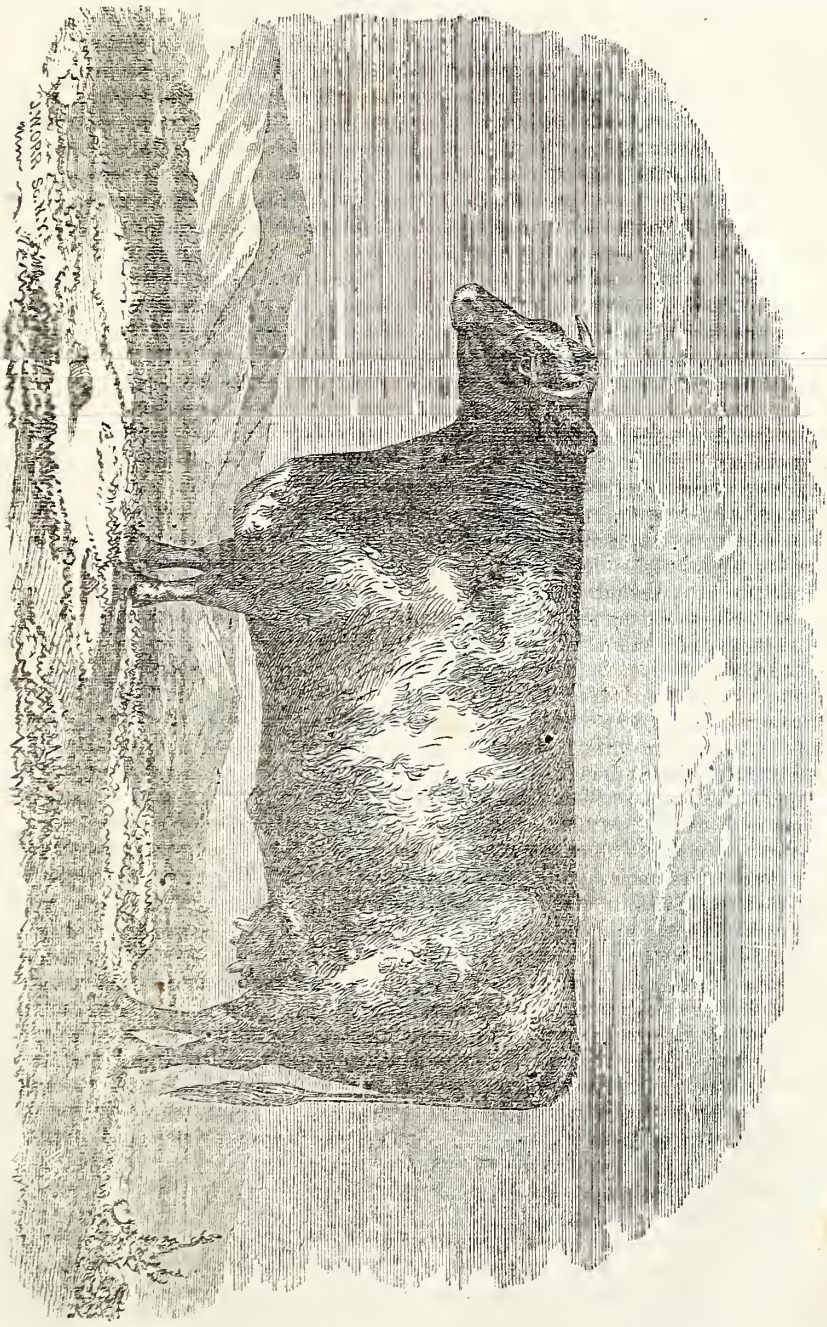
"We left in the open air, in plates, during 15 days, equal weights of the pure guano, and the guano previously mixed with salt. At the end of that time we examined anew the amount of nitrogen, and found that the pure guano had lost 11.6 per cent. of its nitrogen, while that mixed with salt had lost only 5 per cent."

These experiments furnished us with more than one valuable suggestion; they not only show the importance of using common salt in conjunction with ammoniacle manures, but they clearly prove the importance of protecting these from the action of the atmosphere. It should never be forgotten, in fact, by any of us, that when we *smell* very strongly any manure, there copious emanations are going on deteriorating the value of the fertilizer; a loss that, either by the use of some chemical fixer, or of nature's own unfailing fixer, the soil, might have been very commonly prevented.

The quality of the common salt used is of some importance; the kind which we have always preferred is the oil-stained fishery salt, chiefly obtained from the Cornish pilchard fisheries. The fishermen of that magnificent coasts pile up in their store-room these fish in large banks—first a layer of salt, then a layer of pilchards, then salt, then fish, till a heap is formed several feet high. As these are a very oily fish, the oil soon begins to drain from them through the salt, and reaching the paved floor on which the pile is resting, is conducted by channels formed in the pavement, into little cisterns. The oil (which is very valuable for certain manufacturing purposes) turns the salt of a yellow color; and its mixture, added to a proportion of other fishey matter, rather adds to the value of the salt as a manure.

Barley.----The Rochester "Democrat" says:—"There has within a few days been an unusual movement in Barley, a demand having arisen for the article in Philadelphia, and agents sent into the State to make purchases. They have in many cases bought up the crops on the ground, paying farmers what the latter regarded as a fair price.—In view of the doubt respecting the ultimate enforcement of the Maine law, malsters in this region have not been anxious to buy, and have no doubt kept out of the market from a determination to show the farmers that the effect of the prohibitory liquor law would be to depreciate this description of grain, and thus influence their votes at the next election. But while the Brewers here have stood aloof, the crop has been taken by foreign buyers, who visited the farmers at their homes, and engaged the grain in anticipation of the harvest. Now that the demand for the local trade has arisen, prices have gone up rapidly, and those who have disposed of their stocks are dissatisfied. Barley has been selling for nine shillings lately, and the country buyers, it is said, pay even more. Our masters are unwilling to quote even at nine. We noticed sometime since that an agent had been engaged by Philadelphia houses to buy barley and other produce for which the Catawissa Railroad had opened a new market to our producers. It is evident from the course which has been taken that the competition is to be immediately felt in this region.

Wheat from Memphis.----The Memphis (Tenn.) Whig says that Shipments of wheat were made from that port on the 5th instant, destined both for New York and Liverpool. This is something new in the course of trade, as the like was never known before the present season.



LADY MILLICENT.

Calved, May 26, 1847; color, roan; bred by F. H. Fawkes, Esq., Farnley Hall, England; property of S. Thorne, Thornedale, Washington Hollow, Dutchess co., N. Y. Got by Laudable, (9,282,) dam Millicent, by Grouchy, (6,051); Fair Frances, by Sir Tho. Fairfax, (5,196); Feldon, by Young Colling, (1,843); Lily, by Red Bull, (2,838); by Son of Colling (2,131); by Partner, (2,409); by R. Alcock's bull, (19.)

Lady Millicent was imported last fall by Mr. Thorne, in company with eight other short horn cows and heifers. She is a fine, noble cow, having all the characteristics of the short horned cattle. She dropped a superior white heifer calf last March, got in England by Lord of Braurth, (10,465.)

RAIN—EVAPORATION AND FILTRATION

We have before mentioned a paper, prepared for the transactions of the New York State Agricultural Society for 1854, on this subject, by Hon. Geo. Geddes. From an attentive perusal of it, we find it contains matter which would be very valuable to the farmer. Metcorogical facts have not received that attention from the agriculturalist, and not until recently from the government, that they deserve. Mr. Geddes well remarks, that "One of the things to be looked at in selecting a new home is the rain-guage, and the government would do the world a great favor to have rain-guages kept at all the frontier posts, and at every station in the country, and publish the reports, property arranged in tables, for every work."

It has been aseertained from records kept in various parts of Europe and America, that there is annually more rain along the Atlantic coast than in the interior. But the wants of agriculture do not depend so much on the quantity of water as on the manner in which it falls. Thus, some districts which in the course of the year receive an unusual quantity of rain, suffer much from drouth. In England the annual fall of water is stated to be 32 inches. Along the Atlantic coast of the U. States it is at different points from 38 to 40 inches, and in the State of New York, taking the average from about forty points of observation, it is 35 inches. Yet the climate of Britain is much more moist than that of the United States. There the number of rainy days is greater, and the rains more moderate than here. There is also a great variation in different parts of our own country. In the warmer and more level portions, rains often come in heavy showers, washing and packing the earth injuriously; in the cooler and more mountainous sections there is a regular condensation of vapor, and the rains fall lighter and in a longer space of time.

Some of the principles involved in evaporation and filtration, are given by Mr. G. in the following paragraphs:

When the frost leaves the ground in the spring it is full of water, and a cubic foot of this saturated earth is to water in its specific gravity as five to three; dried to the moisture suitable to have seed put in it, it loses one-twelfth of its weight; when perfectly dried it loses one-third.

Mr. Dalton, in making his experiments, came to the conclusion that when it had lost one-sixth of its weight by drying, it was not too dry to support vegetation. When it had lost two-ninths it appeared like top soil in summer. Hence every foot of earth in depth, so saturated, contains seven inches of water, and it may part with a quarter of its water, or even one-half, and not be too dry for supporting vegetation. This is the fund of water with which we start in the spring—say three inches in depth, within one foot of the top of the ground. Roots of plants go down lower than this if the soil is mellow and not flooded with water.

Mr. Dalton's experiments, made with a cylindrical vessel, ten inches in diameter, three feet deep, filled with gravel, sand, and soil—having a discharge pipe at the bottom, by which to measure the quantity of water that runs off, and which gave perfect drainage—the top of the soil being covered with grass, the whole buried so that the top was even with the ground, shows that earth that is moderately moist will take up three inches of water without carrying it beyond the point of saturation. This amount had in the preceding dry month been taken up by the plants and evaporated, and, without making the soil too dry, had so drawn upon it that it could imbibe three inches, which fell in four days.

Ordinary plowing does not bring into use more than six inches in depth of soil; extraordinary ploughing may reach as low as one foot. Subsoiling and trenching to the depth of three feet would give to the plants all that Mr. Dalton claims for his experiments. Where ground is cultivated only six inches deep, it only holds, subject to the purposes of vegetation, (if no account is made of water rising up through the hard earth beneath,) one inch and a half of water. If cultivation goes down one foot the quantity of available water is doubled. If the soil is broken up still deeper, though it may be that the roots of the plants may not go down beyond a foot, yet the water from lower down will rise up by capillary attraction, and supply the evaporation from the superior parts of the soil. So it results that while one foot of earth will hold for the uses of vegetation three inches of water, three feet will hold so much that it can part (without becoming too dry,) with three inches, and then receive in the course of a four days' rain another three inches, without overflow or discharging from the drains beneath.

It will be noticed that in the estimates comprised in the last paragraph, no account is made of water rising from the earth below the depth of cultivation. Now it is evident that whether water will rise from below this or not, depends on the condition of the underlying strata. It is well known that some soil is naturally just in that state which favors capillary

aetion. Other soil is, in a different state, and needs ehanging, artifieially. Further along, Mr. Geddes speaks of soils in this happy "natural eondition" whieh needs not drainage and subsoiling. He says:

In a eountry thoroughly underdrained to the depth of three feet, and deeply subsoiled, neither drouths nor exeessive rains are much feared by the eultivator; a large proportion of the water that falls is treasured up in his subterranean reservoirs, and any exeess is earried off by his drains. Some districts of eountry have a soft, mellow soil, just elay enough, and just sand enough to give it proper eonsisteney, and then this soil underdrained perfeetly by an open gravel or shelly roek.

This is the natural eondition of most of that part of this State that has been denominated by the geologists the "Onondaga Salt Group." It is a narrow strip of land, but little observed east of Madison eounty. It widens westward, and erosses the Niagara river at Grand Island. Most of this soil is drained just enough; but in some eases the shale eomes so near to the top of the ground that the drainage is exeessive, until by deep eultivation the underlying soft rock has been brought to the aetion of the frosts and atmosphere, and thus disintegrated and softened down and made soil. In other eases—as saucer-shaped vallies where the soil has washed from the surrounding hill sides—it is so deep over the shale, and made tenaeious of water by being packed tight in the process of transportation and deposit, that draining is necessary. In some loealities elay predominates, so as to require subsoiling and draining; but these are exeeptions. In many other parts of the State there are soils that neither require underdraining nor subsoil plowing, and the owners of these distriets should be eareful not to be earried off the balanee of their own good judgment by the reports they see of the great utility of underdraining in Seneea eounty and other places, where a tenaeious soil is underdrained by a tenaeious roek of elay. Enough has been said in the previous pages of this article to show the utility of deep eultivation and thorough-draining, where it is demanded by the nature of the soil, and it was thought equally neeessary to warn the reader against the folly of laying out money in those eases where it would do no good.

Mr. Geddes' farm, which, as to produetiveness and permanent fertility, is one of the best we ever saw, is on this formation called the "Onondaga Salt Group." In repeated visits which we have had the pleasure of making to w: ha ve observed the great advantages of al texture of the soil to which he alludes. We invite partieular attention to Mr. G.'s remarks, that this, as well as some soils in other distriets, "neither requires underdraining nor subsoil plowing." The eaution whieh he interposes on this subjeet should be heeded by all farmers who design to use their brains in regulating their operations. Let deep eultivation and thorough draining be practised "where it is demanded by the nature of the soil."

In the following extraet Mr. Geddes deseribes a state of things which we have frequently witnessed. The remarks will apply with speeial foree to mueh of the land in the western part of Vermont, along Lake Champlain, of whieh our readers may reeolleet we have lately spoken:

Some soils do not appear to suffer from an excessive supply of water, when first put under eultivation, that afterwards require draining. This was the ease in some parts of Onondaga eounty. When the soil was first put under the plow, it was lighter and more porous than it was after repeated eultivation—just as earth, by being removed from a cutting, in the eonstruetion of a road, to an embankment loses a part of its bulk; so that it is eomputed by engineers that it takes ten yards of earth, measured in a eutting, to make nine yards after it has settled in an embankment. Whoever has been engaged in the eonstruction of post fenees has observed this tendency of earth to paek together when it is moved. It is eommonly said that a post ean be put in the hole, and then all the earth that was dug out of it ean be put in too. Perhaps another reason that these soils when new are dry enough, and afterwards require draining, is that the eavities and water eourses produeed by the roots of trees are filled up by eultivation.

FOOD CONSUMED BY DIFFERENT SORTS OF FARM STOCK.

In Boussingault's experiments, the average daily eonsumption of 17 horses and mares, aged from 5 to 12 years, and weighing on an average 1079 lbs., was 33 lbs. of hay eaeh, per day, equal to 3.08 lbs. of hay per day to each 100 lbs of live weight. His mileh eows weighing on an average 1466 lbs., are also allowed 33 lbs. of hay per head per day. This gives to eaeh 100 lbs. of live weight 2.25 lbs. of hay per day.

As might be expeeted, Boussingault found that 14 growing animals, from 5 to 20 months old, required more food, or 100 lbs. live weight required 3.08 lbs. of hay per day.

Boussingault estimates from his experiments that pigs eonsume an equivalent of hay per

day, equal to 3 per cent of their live weight. Sheep, too, require about the same amount.

In some experiments made in consequence of premiums offered by the Worcester County (Mass.) Agricultural Society on the economy of cutting food for stock, a pair of working oxen belonging to A. H. Hawes, and kept at moderate work, weighing 3134 lbs., consumed 75.2 lbs. of hay per day; or 100 lbs. of live weight consumed 24 lbs. of hay per day. A pair of steers, belonging to Harvey Dodge, weighing 2220 lbs., consumed 51.2 lbs. of hay per day, equal to 2.84 per cent. live weight. Two dry cows belonging to C. B. Demond, and weighing 1734 lbs., consumed 43.5 lbs. of hay per day, or 2.42 per cent. of their live weight. Two milch cows, belonging to W. S. Lincoln, weighing 1800 lbs., consumed 43.2 lbs. of hay per day, equal to 2.4 per cent. of live weight.

Mr. Barnum's elephant, weighing 4700 lbs., consumes 100 lbs. of hay and a bushel of oats per day; 100 lbs. live weight, therefore, consume 2.12 lbs. of hay and 0.68 lbs. of oats per day, or, estimating, as Boussingault does, that 68 lbs. of oats are equal to 100 lbs. of hay, the elephant consumes 3.12 lbs. of hay per day for each 100 lbs. live weight. To recapitulate, therefore, 100 lbs. live weight of animal requires of hay per day, in

Working horses	3.08
Working oxen	2.40
Milch cows, (Boussingault's)	2.25
Do do (Lincoln's)	2.40
Young growing cattle	3.08
Steers	2.84
Dry cows	2.42
Pigs (estimated)	3.00
Sheep	3.00
Elephant	3.12

There is considerable difference in these figures, but certainly not as much as might be expected from such various animals. The elephant consumes the most, the working horses and young cattle the next highest amount, then the sheep and pigs, and what is surprising, the large milch cows of Boussingault consume least of all. Working oxen would appear to consume less than horses. On the whole, these figures give little indication that large animals consume less in proportion to their weight than smaller ones.—*Country Gentleman.*

HORTICULTURAL QUACKERY.

In the American Farmer for July, among other directions under the head of "Work for the Month," we find the following directions:

"Examine your peach trees a few inches beneath the surface of the ground, and wherever you find a puncture, or the exudation of gum, thrust a knitting needle, or a piece of wire, or the point of a knife into the hole, work it about' and you will kill the worm; then fill up the hole with a mixture composed of two parts of soft soap, one part flour, sulphur, and one part salt, *then paint the trunk of the tree, from the point at which the earth had been dug out to the limbs*, throw back the earth that had been dug out, and sow around the trunk of each tree a mixture composed of half a peck of lime, half a peck of ashes, 1 pint of salt, and 1-8 lb. of saltpetre, and each year thereafter strew around the trunk of the tree at the ground, half a peck of lime."

It is to the sentence in italics to which we wish to call attention, as it involves the violation of an important physiological law. Very frequent cases are recorded by our exchanges of the destruction of trees from practices similar to the one here noticed. In reference to this subject, we find the following in the Country Gentleman of the 19th ult.:

"Some cultivators seem not to be aware of the existence of evaporating pores in the bark of trees. We see an evidence of this want of knowledge, in the frequent attempts that are made to prevent grafts from drying, by merely closing the ends with wax, and other similar attempts. Improper applications to the bark, by closing these pores, frequently causes the death of the trees: instances of which are often seen recorded in the papers. When we see oily substances recommended as remedies to prevent the attacks of insects, &c., we may confidently predict the destruction of the trees. As examples, we clip the two following statements from exchange papers, now on the table before us:"

Sure Cure for the Curculio.—Mr. Jas. Taylor of St. Catherines, Canada West, having learned from the Tribune that a Mr. Joseph Mather, Goshen, C. W., had found a mixture of sulphur, lard, and Scotch snuff, rubbed freely upon the body and branches of a plum tree, an effectual remedy against the curculio, writes to that paper that he (Mr. Taylor,) tried it upon some of his choicest trees, and had a splendid crop of plums. But mark the result: Every tree so treated, except one or two young ones, is now dead! Sure remedy, that!—*Amer. Agr.*

Tar and Oil for Trees.—The Ozaukee County Advertiser says:

In the May number of the Chicago Prairie Farmer, an article appears, contributed by A. G. Hanford, Esq., of Waukesha, recommending the use of "tar and linseed oil, equal parts mixed," to be applied while warm to fruit trees, to destroy the "bark louse." While in Waukesha, a few days since, we chanced to visit the

orchard of Mr. A. Griffin, who with a saddened countenance, pointed to his once thrifty and productive orchard, how totally destroyed by the application of tar and linseed oil. It appears that he had heard of the success of the experiment as tried by O. S. Rathburn, of Brookfield, and resolved to make the trial on his own orchard, the result of which was the entire destruction of a beautiful and bearing orchard.

The structure of woody plants consists principally of woody tissue or fibre and cellular tissue. These two tissues exist in relation to each other in different plants in different proportions Trees and shrubs are mostly woody fibre, while soft, succulent herbs are almost entirely composed of cellular tissue.

"When the stem is first called into existence, it is merely a small portion of cellular tissue: an organic substance, possessing neither strength nor tenacity, and altogether unsuited to the purposes for which the stem is destined. If such matter formed exclusively its solid contents, the stem would have neither toughness nor strength, but would be brittle like a mushroom, or like those parts of plants of which cellular tissue is the exclusive component; such, for example, as the club-shaped spadix of an Arum, or the Soft prickles of a young rose branch. Nature, however, from the first moment that the rudiment of a leaf appears upon the growing point of a stem, occupies herself with the formation of woody matter, consisting of tough tubes of extreme fineness, which take their rise in the leaves, and which, thence passing downwards through the cellular tissue, are incorporated with the latter, to which they give the necessary degree of strength and flexibility. In trees and shrubs they combine intimately with each other, and so form what is properly called the wood and inner bark; in herbaceous and annual plants, they constitute a lax fibrous matter. No woody matter appears till the first leaf, or the seed-leaves, have begun to act; it always arises from their bases; it is abundant, on the contrary, in proportion to the strength, number and development of the leaves; and in their absence is absent also

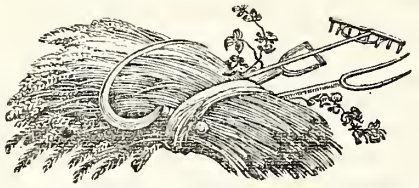
"When woody matter is first plunged into the cellular tissue of the nascant stem, it forms a circle a little within the circumference of the stem, whose interior it thus separates into two parts; namely, the bark or the superficial, and the pith or the central portion, or, in what are called Endogens, into a superficial coating analogous to bark, and a central confused mass of wood and pith intermingled. The effect of this, in Exogens, is, to divide the interior of a perennial stem into three parts, the pith, the wood, and the bark.

"As the cellular tissue of the stem is not sensibly lengthened more in one direction than in another, and as it is the only kind of organic matter that in stems increases laterally, it is sometimes convenient to speak of it under the name of the *horizontal system;* and, for a similar reason, to designate the woody tubes which are plunged among it, and which only increase by addition of new tubes having the same direction as themselves, as the *perpendicular system.*

"Wood properly so called, and liber or inner bark, consist, in Exogens, of the perpendicular system, for the most part; while the pith and external rind or bark are chiefly formed of the horizontal system. The two latter are connected by cellular tissue, which, when it is pressed into thin plates by the woody tubes that pass through it, acquires the name of medullary rays. It is important, for the due explanation of certain phenomena connected with cultivation, to understand this point correctly; and to remember that, while the perpendicular system is distributed through the wood and bark, the horizontal system consists of pith, outer bark, and the medullary processes which connect these two in Endogens, and of irregular cellular tissue analogous to medullary rays in Endogens. So that the stem of a plant is not inaptly compared to a piece of linen, the horizontal cellular system representing the woof, and the woody system the warp."

From the above explanation, we see that there is an extensive free communication between the atmosphere and every internal portion of a plant, and numberless facts similar to those we have presented, prove conclusively that this arrangement cannot be violated with impunity—but that if it is not always fatal to the life of the plant, it is injurious in a very serious degree.

Whitewash.—Poor whitewash is serious injury to a wall ceiling, and when once on, it is difficult to get it off or properly cover it, and produce a clear white appearance. This is the season for cleaning up, and we will give the recipe for a first rate wash: Quick lime, slacked by boiling water, stirring it until so slacked. Then dissolve in water white vitriol, (sulphate of zinc,) which you get at the druggists, at the rate of two pounds of zinc to a half barrel of whitewash, making it of the consistency of rich milk. This sulphate of zinc will cause the wash to harden, and to prevent the lime from rubbing off; a pound of fine salt should be thrown into it.



THE SOUTHERN PLANTER

RICHMOND, OCTOBER, 1855.

TERMS.

One Dollar and Twenty-five Cents per annum, which may be discharged by the payment of One Dollar only, if paid in office or sent free of postage within six months from the date of subscription. Six copies for Five Dollars; thirteen copies for Ten Dollars, to be paid invariably in advance.

☞ No subscription received for a less time than one year.

☞ Subscriptions may begin with any number.

☞ No paper will be discontinued until all arrearages are paid, except at the option of the Editor.

☞ Office corner Main and Twelfth steets.

ADVERTISEMENTS.

A limited number will be inserted at the following rates: For each square of ten lines, first insertion, One Dollar; each continuance, Seventy-five Cents. Advertisements out of the City must be accompanied with the money, to insure their insertion.

☞ It is indispensably necessary that subscribers ordering a change should say *from* what *to* what post office they wish the alteration made. It will save time to us and lose none to them.

☞ Postage on the Southern Planter, (when paid in advance,) to any part of the United States one cent and half per qnarter, or six cents per annum.

"WHAT THEY THINK OF US."

It is a custom of some papers, better honored in the breach than in the observance, to publish the commendations bestowed on them by other papers. We do not admire this plan, and if we had praises enough from our cotemporaries to make it worth while to collect them---which we have not, and from our own fault, no doubt—we would hardly venture, even for money, into that kind of egotism.

But what our subscribers think of us is a matter of more moment. From one circumstance we fear we are not held in very high estimation by them, and that circumstance is the failure to pay their subscriptions. There are two ways in which subscribers may shew their appreciation of an editor's labors: the first is to read him; the second to pay him. We fear we are not read, because so few people have responded to the invitation we lately gave them to pay their dues. And from this and other reasons, we know we are not paid. One of the strongest of these other reasons is that we did not get money enough last month and the month before to pay the clerk hire and printing bill of the paper, and had to advance three hundred dollars out of our private funds. This is not right. If gentlemen think the Planter an indifferent paper, we do not ask them to take it, nor complain of an opinion, which is perhaps correct. But we do say that we would much rather they would pay up and "stop the thing," than take it and continue in our debt. The want of $9000 makes a vacuum in any man's pocket: it creates a great gulf in ours.

MEETING OF THE STATE AGRICULTURAL SOCIETY.

We presume that every body knows that the Fair and Exhibition of the Virginia State Agricultural Society is to take place on Tuesday, the 30th of October, and to last four days, as usual. We presume, too, that every body will be at it, as usual. We have been asked occasionally by some of its friends, why we have not made a fuss about it. We have two answers to give: First, that we do not exactly know how to puff; second, that if we did the Virginia State Agricultural Society is not supposed to be in need of it. We would as soon think of puffing Congress in order to convene the politicians, big and little, that compose that respectable body; or of "praising up" the Virginia Legislature to make sure of a quorum. No, no, the Society now numbers, men, women and children, upwards of twelve thousand: it is a settled and powerful institution, beyond all compare the largest and most imposing of its kind in the U. States; it has held the two most brilliant exhibitions that have ever been held, and on the best appointed fair grounds in the Union, except perhaps in Kentucky. Its members have manifested more enthusiasm and more of "simple, solid, hard money" liberality than any other two or three societies of other States put together; it has twice assembled more of "her beauty and her chivalry" than Virginia ever before saw brought together, and has on those two occasions introduced to friendly converse the pick of every part of the State except the distant and almost detached Northwest. It is the grand festival of agriculture, the great entertainment annually given by Richmond. And when it is known, as we presume it is, every where, that the same invitation has been long ago extended to every citizen of Virginia, and on the same terms, we do not see the use of beginning to beat the drum some months before the muster.

What will be the character of the Fair, we have no means of ascertaining. As little had we before. Exhibitors as a general thing say nothing of their purposes before hand, and at each previous Fair they have taken us completely by surprise. But we have heard that our friend Col. Kent, means to have something fat on hand, that Mr. Cloyd is aiming at something fatter than he had last year, and that McGavock has the fattest bullock he ever

did have, and that he means to make him THE *bos*, or the boss— our informant was not certain which— of the fat cattle. Our *old* friend Mr. Burwell, of Powhatan, is "backing and filling" "the best yoke of steers in Virginia," &c. James Newman, Esq. of Orange, is feeding what he means to be "the best carcass of slaughtered mutton," on a mixture of corn meal and suet. Dr. Woods is putting some corn into a few choice hogs of his admirable breeds, and various others that we hear of "will come if they can," which means they can't be kept away.

But let us pass to other matters. There will be one or two questions perhaps for the Society to consider, in reference to which we desire to say a word. The first of these questions is their action on the Constitution which will be submitted to them.

It will be recollected that at the last meeting the President was required to appoint a committee to revise the present Constitution and report such amendments as might to them seem expedient. That committee, composed of gentlemen of character and ability, has had two laborious and protracted meetings, and will shortly have a third to complete their work. That they have worked faithfully and zealously we know, for we were necessarily present during much of their deliberations, and they have framed an instrument which they have deemed the best under the circumstances and the most likely to meet the wishes of the Society. We take leave to bespeak for it in advance a calm consideration, and a regard to the difficulties under which it has been framed. For ourselves we disapprove it, but we mean to vote for it. It contains ample provisions for its own amendment, and can therefore safely be adopted. Defective as it may be, and as we think it is, anything is better than the wild confusion which our last meetings exhibited, and which must always ensue when three thousand gentlemen in mass attempt to legislate, or to deliberate.

The second question is, what shall be done with the money already in our coffers, and how shall we raise more? A great annual exhibition, however useful and interesting, cannot be the whole end and aim of a large agricultural society.

The Legislature having failed, we think accidentally, to grant the largess asked of them by the Society, the Executive Committee have been at a stand, and for want of means could not prosecute any of the plans of improvement which have been suggested by various persons. What these plans may be, it is not proper to discuss in this place; but we humbly submit that it would be more profitable, if we are to have debate at the next meeting, to discuss such things than some others that have distracted the Society.

But these are matters which can be more appropriately brought forward in the annual report of the Executive Committee, and they are here merely alluded to that members, if they decide to act on them, may not come entirely unprepared.

The reason why the committees have not been sooner announced is, that so large a portion of those appointed, and notified of their appointment, have not replied to the notice. It is very desirable to know, before the public announcement is made, whether those appointed will serve; and it is therefore deemed prudent to wait until the latest moment.

The Rail Road and other transportation companies of the State were addressed some time ago, to know on what terms they would transport passengers and articles of all sorts intented for exhibition. With the exception of the Va. & Tennessee Road, which declines giving any gratuitous assistance, those that have been heard from have determined, with their usual and expected liberality, to transport on the same terms as heretofore, and there is no doubt that the rest will follow suit.

"BEWARE OF CUTTING WHEAT PREMATURELY."

"One of the largest wheat growers in the State of Delaware, who uses between fifty and sixty tons of guano a year, informs us that he lost nearly three thousand dollars by cutting his wheat prematurely, and thereby causing it to shrink badly, at the harvest of 1852. He was indueed to deviate from his usual practice by reading an extended article on harvesting wheat, written by Mr. Edmund Ruffin, of Virginia, who is generally regarded as high authority, being himself a pretty large wheat grower." * * * * *

The foregoing, which is the beginning of an article in the "Working Farmer" of August, copied from the "Burlington Gazette," is a serious though a loose and general charge, made without any specifications upon which to found a defence. We do not question the occurrence of the heavy loss stated—or, it possibly, might be, any amount or number of such losses. But in all such cases, we are confident that the loss was caused, not by the *following* of the advice and directions here charged as being the guide to error and disaster, but the *neglect* of some of the important particulars directed in the essay in question. We have some general and personal acquaintance with Mr. Edmund Ruffin's practice in this respect, conforming as nearly as circumstances will permit, to his directions referred to above. We have never heard of his having suffered any loss from his early reaping of wheat, nor of any other person's doing so from truly following his precepts. And we have heard from him that he has aimed to reap as early as he has advised others to do in every harvest since about 1821; that he has never lost by it, or regretted having begun to reap too soon; while in every harvest, he has had to regret that, for want

of sufficient force and speed of operations, a proportionate quantity of every crop was reaped riper, and much riper, than the state preferred, and that by this unavoidable delay, much waste and loss have been incurred.

FINE FRUIT.

About ten days ago, we received per Adams & Co.'s Express, freight paid, a box of fruit, containing pears, apples and peaches, from Mr. H. R. Robey, proprietor of the Hopewell Nurseries, near Fredericksburg. We never eat apples when we can get peaches, nor either when we can get pears, nor pears when we can get figs. But having no figs, we ate—we and some friends, Mr. Robey, of course, sent more than enough for "just you by yourself"—all the pears that were then eatable, and found them first rate; then we fell upon the peaches, and found them delicious—almost as good as if they had been brandied; to which, by the bye, Mr. Robey has a peach admirably adapted. The apples we left for a more convenient season. They were very large and apparently fine. If we are to judge the trees by their fruit, we should say Mr. Robey has some good trees; and the people of Fredericksburg and the country around, need not go to the North—that eternal North—to get anything in the plant line.

P. S. We have since eaten some more pears, and feel better. Dreamed last night that we were the Duchess D'Angouleme in hoop petticoats, hanging by a Chinese queue, from a pear tree, and were proposing to "pear off" with a Mr. Bartlett; when Mr. Robey came in and began to eat Mr. Bartlett, pronouncing him very juicy and sweet as sugar. Whereat our ladyship was so shocked that we attempted to fly the orchard, but tripped in our unaccustomed attire, fell down five miles and knocked out three teeth. Waked up very much stunned at the end of the *trip*, congratulating ourself that it was no worse, and that the drapery had proved so good a parachute.

Mean to read no more fruit tree catalogues about bed time.

GUINEA FOWLS vs. RATS ONCE MORE.

A correspondent from Orange writes that Guinea fowls will not drive off rats, as he knows of cases in which they both infest the same curtilage.—So do we: in our own case, we have had a henyard, where one side of the enclosure was the gable end of a smoke house. The Guineas lived there, and the rats destroyed two or three hundred weight of meat every year. It is probable that their first introduction annoys the rats—their nocturnal clatter will annoy folks—and drives them away; but they will soon become accustomed to it, and return. Any other unusual noise, if loud, and constantly repeated, will cause them to depart, but only for a season. Thus, we have always heard that Gov. Randolph once rid a barn of them by causing a drum to be beat all night in the barn, for two or three nights in succession. We do not know if they returned, but presume they did.

For the Southern Planter.

DRAINAGE.

Mr. Editor:

Sir:—At your kind request, I submit some of the details of my practice, upon the much neglected subject of ditching, in our State. It is a difficult matter with me to give any general directions, suitable for all occasions and localities. I think, however, I can point out some important labor-saving plans, combining great efficiency, as well as thereby relieving the operation of ditching of many of its terrors, of expense and tediousness, in this era of rapid progression.

In taking possession of a farm in Virginia, where the previous management was according to the customs of the olden time, you are apt to be confused by the old ditches, fences, hedge rows and bushes, in running your drains in proper places. It is, therefore, necessary to take a comprehensive view of the fall of the country, and particularly the fall of the whole land you design ditching. In doing this, discard all the old ditches and other draw-backs from your eye, as much as possible. Set out with the determination to leave no open ditch wherever the body of water can be compassed, safely, with a secret ditch.* Open ditches offend the eye by their annual crops of briars, alder, &c., besides, in most cases, becoming nullities. The freezing and thawing of winter, or the dashing rains of summer, almost invariably fill them up, or cause them to change their course. It is necessary, where you have no river or creek, to receive your secret ditches, to have one, and sometimes, though rarely, two, main open ditches, in a land, to carry the water from the covered drains, and from the surface. Open ditches should be located in the lowest places; the banks, while the operation is going on, should be drawn off, according to the quantity of earth, by ploughing and scooping, to the distance, (each side of the ditch,) from 5 to 10 yards. This must be done to enable the surface water to flow from all parts of the land, freely into the ditch. The old

*It is very important to notice your land, when perfectly saturated, after a long spell of wet weather; the narrow ditches are intended for ordinary land; when the body of water requires it, widen the ditches to 16 inches.

plan of leaving two high banks on each side of the ditch, did more harm than good. Upon this new plan you can plough and cultivate nearly to the water's edge. This practice prevents the growth of noxious weeds, so universal upon the high bank ditches.

*Secret Ditches.**—An experience of some twelve years has reduced my practice to the following mode of constructing under drains. In the first place, it is my invariable rule to haul the stone in place before a spade is suffered to be put in the ground. I either run the line of ditches with a plough, or set up a number of stakes. I will venture to assert, that more time and labor has been lost from the neglect of this rule, than would have accomplished half as much more ditching. The caving in of the banks, after a few rains, renders the undertaking almost as tedious as the first cutting. I have two sets of spades and long-handle shovels—one set of the common size, and another set to work in the bottoms of the ditches—the spades 5½ inches wide at the edge, and the shovels four and a half inches wide. My "labor-saving ditches," as I call them, are commenced about 2 feet wide at the top, with the ordinary spade; then draw in gradually to the depth of three feet, when the additional foot is cut with the narrow spades and shovels. I hold it to be good policy and great economy, to dig all secret ditches at least 4 feet deep, when the requisite fall can be obtained. The moment you finish a line of ditching, turn right around and lay the stone. Have a quick boy on the bank to hand the stone to the layer. If you have flat stone set them all edging, upon the principle of the arch. For instance, the sides of your ditch, for a foot or so from the bottom, are from 7 to 9 inches wide. If the bottom is very soft, and many craw-fish abound, first lay a thin stone on either side of the bottom, then upon these lay the largest stone edgeways, bringing them together at the top; then wedge these behind with all sizes, top dressing with the smallest. It is a safe rule to raise the stones to fully 2 feet in height. This can be done in these narrow ditches with fewer stone than is used in ditches cut *three feet wide* and 2½ deep. If you have round stone, throw them in at random, only taking care to put enough. An inverted sod, usually to be had on the bank, makes the best covering, before the dirt is drawn upon the ditch. My rule is, to fill my ditches with a two horse plough, with some use of the hoe, in finishing off. Pine poles and all kinds of wood, I utterly discard, as material for making drains. The labor justifies more lasting substances. Gentlemen upon tide water, who have no rock upon their land ought, by all means, to use tile, and be sure they are *large* enough and *well burnt*. Negroes are old fogies, all the world over, and it is difficult to convince them that it is less laborious to cut a narrow ditch than a wide one. They say they have not room to work. My hands have to stand in the bottom of the ditches, which are about 7 inches wide, with one foot before the other.

You have less than one-half the earth to cut and throw out in the narrow ditches, and the stone can be laid in half the time, and being supported by the narrow banks or sides, are less liable to get out of place. If I could show you the mouths of my ditches, you would have such ocular demonstration to support all I have stated, that you would not hesitate to adopt a similar practice. I do not claim originality in this system. It is very generally the usage in Scotland and parts of Ireland, and perhaps of England also. I omitted to say when sods are not to be found upon the ditch banks, pine brush constitute a covering for the stone, not to be surpassed by anything known.

I have thus hastily given you the details of my draining, as I promised you, together with with as much "elaboration" as you will probably desire. I have written it particularly for yourself, not that I think myself capable of imparting learning in this branch, but because you put the request in a way I could not well refuse. If it is worth the ink and paper to publish it, you are welcome to do it. Hoping it may be of some service to yourself, at least, I sign myself openly,

A Secret Ditcher.

For the Southern Planter.

TO THE READERS OF THE PLANTER

Who have, or may hereafter have Seymour's Broadcast Sowing Machine.

We will suppose the machine before you in the condition in which you receive it, provided it reaches you in good order. First put on the wheels—observing that the wheel with the heaviest casting, or "quick motioned zizzag" is the right hand wheel as you sit in the chair to drive the horse. The wooden lever belongs on this side, and is operated by the wheel to

* It frequently happens persons are deterred from covering ditches, because of low places of basins. When this is the case, let the surface water of these into the secret ditch, by deep furrows, only observing to put a load or two of small rock just where the furrow enters the ditch. This will prevent any derangement or obstruction to the operation of the under drain.

give a quick, vibrating motion to the "seed rod," "plaster rod," &c., while the iron lever is operated by the "slow motioned zizzag" on the left hand wheel to operate the "feeder." A cord passing from the upper end of the wooden lever over the pulley, to the left leg of the chair above the middle, is very convenient for the operator, enabling him to stop the sewing at pleasure, merely by placing his foot upon the cord. The shafts and seat being put in place, the machine is ready for action.

The "rods" for sowing may be changed by raising a small iron slide inside of one end of the box, and drawing out one rod at that end and putting in another. The amount of seed per acre must be determined by the operator. Let him set the machine so the seed he wishes to sow will just pass. This with a medium motion of the rod, (or at all events with the shortest motion of the rod,) will give as small a quantity as is ever desired, and the quantity may be increased by increasing the motion of the rod, or by enlarging the passage for the seed. The index shows when you enlarge the passage for the seed—thus it may be increased to any desired quantity, (varying, if you wish as little as half a pint at a time,) within the capacity of the machine, which is from a peck of grain to ten bushels or more, and from two quarts to three bushels of clover or timothy seed, or of the two mixed, and from one peck to twenty bushels or more of lime, plaster, &c. It is proper here to say, the dryer the lime, plaster, guano, &c. the more per acre may be sown, for when damp they require a larger space to discharge the same amount. And now a word to those who have, or may have Seymour's Grain Drill.

The seed box and mode of distributing the seed and regulating the quantity is the same as in the Broadcast Sowing Machine.

It is so obvious *how* every part goes that it would seem difficult to make a mistake in putting it together.

The wonder is, that so simple a machine is capable of doing, with almost no machinery, all which is deemed important, that any other grain drill will do, while it is divested of that complication in which most of them so largely share. Directions for using are found in each machine.

P. SEYMOUR,
Patentee of Seymour's Broadcast Sowing Machine, and Seymour's Grain Drill.

He that rises late, must trot all day, and scaree overtake his business at night.

For the Southern Planter.

But especially for Mr. W. J Bingham.

GRASSES, SHEEP, &c.

SIR :—You inquire about grasses, sheep, &c., to which I reply.

If you have abundance of hay for winter, and grass for summer, then perhaps the Durham cattle are preferable to any other; but on ordinary keep the Devon, or the black Scotch polled are to be preferred. The Scotch cattle above alluded to are black, with red back, no horns, short legs, heavy bodies, thick hides, hardy, and easily fatted; and everything considered, I incline to think they are for general purposes, the most profitable breed of cattle in our country. I had a few some years past, but discarded them and started after the fashion, which I now regret.

If you have a convenient market for mutton, then the carcase should be the predominant object, and consequently the larger the breed the better, provided that breed will fatten kindly. If the marketing your mutton would cost much, then wool should be the predominant object, and consequently the finer the quality the better. But what will you do with your old sheep? It is true that a healthy wedder or buck will live to the age of 30 or even 40 years, and yield his fleece annually; but what is to be done with the old ewes? In my younger days I was a breeder of sheep, but not now; yet, if I were, I should prefer the Spanish Merino, which combines both valuable carcase and valuable wool. But, Sir, let me tell you that no man can succeed in any manner of business unless he takes pleasure in attending to that business, consequently if you cannot condescend to occasionally follow your shepherd and sheep all day, with an ash-cake in one pocket and a bottle of water in the other, touch not the sheep business.

There is no profit, worth consideration, on a stock of less than 1000 sheep. In a healthy region, from one to two thousand can be kept in a flock, in health, provided the shepherd does not permit them to lie in filthy places. And I will also make the declaration that no man can profit by breeding sheep on lands which are fit and proper for agricultural purposes. Elevated, broken, and rocky lands, and locations secluded from market are proper for sheep walks—"The cattle on a thousand hills are mine, saith the Lord." If your fences are not tall, then you should not own a tall sheep, for certainly over he goes, and then over goes short legs also.

As to the proper grasses which you should sow, I thought I had been suffieiently explicit

in my late communication, to which I beg leave to call your further attention. But one remark I will now add, that is, if your lands are liable to broom, let your seeds at first be principally red clover, so that by the application and effect of plaster, the land may be advanced beyond the natural broom point. Red clover is not valuable for grazing purposes, principally because of its being so easily killed by the treading of stock, but it is well to scatter a few seeds with other grasses, that the grazing animals may have variety.

Above I have said that sheep should not be kept on land which is fit and proper for agricultural purposes. Now, although I do not intend to modify this declaration, yet it may need explanation. There are some few spots, other than alluvial bottoms, which from natural causes or peculiar management, become surcharged with vegetable matter, and hence (in part,) too porous to yield a crop of corn or wheat equivalent to their apparent ability. Such lands are wanting what is generally termed animal matter; that is, the droppings of animals, their respiration and perspiration, in quantities equivalent to the vegetable matter; in addition to which the tramping of the animals will also add to the improvement. For this purpose, perhaps, sheep are to be preferred. And for the eradication of sassafras and briars perhaps sheep are preferable to any other animal; but when these purposes are effected what is to be done with the sheep?

For grazing purposes the most valuable grass in our State is the green sward, especially for sheep; and I very much doubt the success of sheep breeding in Va., where the green sward does not appear without sowing, except in some of the western counties, where the timothy has become indigenous. I would not dissuade Mr. Bingham from his purpose of attempting to profit by breeding cattle and sheep for market, but as he asks my opinion, I answer, I think his locality (Orange county, N. C.,) unsuitable for either purpose. The murrain, the rot, the flies, and ticks, will be down upon his stock; and in proportion to the increase of the herd of the flock, so the increase of disease. Let him, however, hold on to what he has on hand, and let his increase of stock only be proportionate to his increase of confidence.

As to the Murrian, (distemper,) I suppose Mr. B. is better acquainted with the disease than I am, for it is common in his neighborhood, but is seldom seen north of James River. But having suffered by the rot, I can tell him how to detect it, and the remedy. If a sheep coughs vehemently with head up, the disease is asthma, and not dangerous; but if the cough is suppressed with head down, it is rot, (consumption,) and the only remedy is to fatten him as quickly as possible, and away to market. And as this disease is infectious, the diseased sheep should be separated from the flock so soon as the disease is detected. I say be in haste to fatten, for if the disease is suffered to run longer than three or four months, the animal will thereafter not fatten, but become poorer for eight or ten months, when death overtakes him. I do not think that the above recommended act would be fraudulent, for surely a fat sheep cannot be objectionable.

In consideration of the natural habits of the sheep, I incline to the opinion that the Creator intended they should be continually under the control of man. Unlike all other animals, they are too lazy or stupid to seek a proper shelter from the scorching sun or pelting storm; and when they have taken a position by the side of a fence or log, they hold on till near sun down, and return thither day after day, unless beat and kept off by sticks and stones. Perhaps the hot sun and accumulated stench produces the rot. Sheep should be kept on the coolest and cleanest portions of the pasture ground during the heat of the day, and on the warmer portions before and after. I doubt whether a sheep will ever die of disease in a healthy region, during the grazing season provided the shepherd performs his duty.

If any person is disposed to doubt that a sheep will live to be 40 years old, let him signify that doubt, and I will prove my assertion by a certificate from Mr. Thomas Allen, of this county, whose mother owned the sheep referred to.

Now, friend Bingham, I have answered your interrogatories to the best of my ability. Please pay me in something of the like kind, through the same medium I send this.

Yours,

Za. Drummond.

For the Southern Planter.

CORN FODDER.

In the last number of the Southern Planter a correspondent writes in terms of commendation of the practice of cutting off corn at the ground to rid the land of the crop, and save the provender for winter use. The plan he proposes for shocking the corn would be entirely impracticable in this county, where the plant grows from 10 to 16 feet high. If I understand his plan, he shocks around a stake, and after tying, withdraws the stake from the top. Now, as our corn shocks are fully 10

feet high upon an average, it would take rather a greater *length of leg and arm* than is usually seen in these parts. It has been my practice for ten years to cut off corn, and I have found but little difficulty in securing both fodder and corn. As the shuck begins to dry or the grain is well in the dough state, I commence cutting off. The operation may be done with safety much earlier than is usually supposed. In commencing let one hand enter the corn in the row selected for the shocks, leaving about eight hills behind him—take four stalks from hills forming a square, draw the tops together and tie them; then let each hand cut off as many stalks as he can conveniently hold in one arm, rest the buts upon the left thigh, (which assists in moving it from hill to hill,) and without dropping the *turn* carry it at once to the shock. The important point to be observed in shocking is to place the stalks "*square*" to the shock, as they are leaned to a common center at top. If they be placed obliquely to the shock it "twists" in curing, and the whole will tumble down. If the corn be cut green, it is best to make the shocks but half the proper size with the first cutting—cutting eight rows and leaving eight alternately through the field. This allows the interior of the shock to cure before the rest is added to it, and enables us to make the shocks of larger size. In this case I tie the shocks twice, otherwise but once; and this may be done either with splits prepared for the purpose, grape vines, corn stalks or broom corn. This last ties better than Indian corn, and is more easily procured than either splits or vines. By planting broom corn through the field at convenient points the tyers are always at hand. The shocks stand sixteen rows apart one way—the distance the other depending of course upon the thickness of the corn and size of shock. The strips occupied by the corn may be seeded in oats, and the whole land thus brought into grass at once.

If the corn be very tall I cut the stubble two or three feet high, which lessens the weight of stalk without loss of fodder, and makes the shocks stand up better.

I agree with your correspondent that the fodder thus saved is equal to blades and tops, and I am very sure I can rid the land of crop by this system with two-thirds the labor expended in the blade pulling and top cutting process.

Yours truly,

R. W. N. N.

Rox, Albemarle Co., Va.

Below will be found the republication of a valuable article from Dr. Thomas W. Meriwether, on the remedy against joint worm. So certain is the remedy in the hands of Dr. Meriwether, that he has concluded, after full trial of its efficacy, to compete for the premium of $500, offered by a portion of the Executive Committee for the discovery of some available and sufficient remedy against the joint worm. By the terms of the schedule, the remedy must be presented in time to be tried this fall, and hence Dr. Meriwether publishes it now, in advance of the meeting of the Society.

How far the presence of Chinch Bug should deter from early seeding, must depend on the judgment of each farmer. Our own experience with Chinch Bug is so limited that we do not know what to advise.

For the Southern Planter.

THE WHEAT CROP AND ITS ENEMIES.

Mr. Editor:—Whilst the wheat is "rooting," as our great farmer Rogers used to express its winter growth, let us endeavor to dive into some of the mysteries of this wonderful plant. The chief of these at psesent is, the destroying joint-worm, which has diminished the crop of this and several adjoining counties from 30 to 50 per cent. Yet, in the midst of it, for the last two years, my crops have been the best I ever made. Of this fact I will give the reasons, so far as I know, in the hope of throwing some light on this engrossing topic.

A short review of the wheat culture of Virginia may be of interest to our younger brethren, and illustrate more clearly our present difficulty. In old times, before the Hessian fly, when the wheat was often sowed and ploughed in at the last working of the corn, almost the only limit to the crop was in the extent and fertility of the land. This success encouraged its cultivation, till the wheat patch, as it was then called, expanded into the wheat field. Then came the fly, so destructive under this system, that it was called *Hessian*, after a ruthless and unprovoked enemy, and erroneously supposed to be brought over by them. The habits of this insect being carefully investigated by Gov. Barbour, Gen. Cocke, and others, showed the danger of too early seeding, and the advantage of grazing and other means of diminishing its ravages.—To avoid their fall deposit of eggs on the blades of the wheat, it became the settled practice not to begin sowing earlier than the first to the fifth of October. This delay of a full month or more from the former usage, besides subjecting the latter part of the crop to the spring attack of the fly, aggravated enor-

mously the danger from rust—the universal enemy to the wheat. The necessity of early ripening to escape the rust, while prevented from early sowing by the fly, led to the trial of every possible variety of wheat, nor is any one kind even yet decided on as the best.—The Mediterranean has at least the two-fold advantage, that it may be sown ten days earlier, and ripens nearly as much sooner, than the white flint and other standard kinds. Its culture, in spite of many objections, is extending, and of this our crops in this region partly consisted when first attacked by the joint-worm. In the panic occasioned by this dreadful enemy, which has driven some of our farmers off the field, we could not at first say that it spared any kind. But on closer inspection, the old proverb proved true—"the devil take the hindmost."

The joint-worm has a certain time to change from its chrysalis state and come forth to work; but if a little before this time the wheat ean head, the straw is then too hard for them, and they seek that which is more tender.—Their mode of operation is to pierce the outer covering near the joint, and deposit their eggs, which soon hatch and cut off all nourishment from above that point. Upon these facts we base our practice, which is to sow in good time and with the best preparation the earlier kinds of wheat, and push them in every way to the speediest maturity. We begin by the middle of September, or as soon after as we can get ready, and sow for the first week or ten days of pure Mediterranean, then of one-third early purple straw mixed with it, and finish with the purple straw alone. If any Poland or late wheat at all, it should be sowed early in October on tobacco land, or the most favorable spots as to fertility and exposure. The white May wheat we are now trying, to see if that will not head the enemy. My neighbor, F. K. Nelson, tried his last crop in three ways, and all turned out well. First, prime clover, fallow, sowed early in Mediterranean; second, well manured land in the same, and third, the corn field in early purple straw, with guano. These three methods seem likely to succeed. I know of no other. Ordinary fallow, or good corn land, may do with one hundred pounds of guano to the acre; but two hundred pounds are necessary if the land be poor. The wheat drill with the guano attachment, will, I hope, do great things for us and the whole country. A single experiment with it in Fauquier is enough, at least, to attract attention. Three strips of land, sowed side by side, the first, without help, brought fifteen bushels to the acre; the second, with two hundred pounds of guano broadcast, fifteen; and the third, drilled with fifty pounds of guano, twenty bushels.

Yours, sincerely,

THOS. W. MERIWETHER.

Albemarle, February, 1854.

For the Southern Planter.

In your September No. is a communication signed Yardly Taylor, commenting on Dr. Baldwin's theory of promoting the fertility of soil. The spirit of that piece is in anything but good taste. It is arrogant, and its allusion to Cobbett's maxim is vulgar—but let all that pass. Mr. Taylor says: "What is the difference between woody and vegetable fibre in a state of decay, and wood in a state of putrefaction?" This is asked in triumph. Pray, Mr. Taylor, do you not know the difference between decomposition and putrefaction? If you do not, then in your own words you *have* "exposed your ignorance." The error of Mr. Taylor is that he pins his faith on *names;* and names in this age are worth just as much as they will bring.

Dr. B. offers his second premium of $100 for proof that "any substance whatever possesses the fertilizing qualities of manure except the residue of putrefaction."

Sulphate of lime, says Mr. Taylor, is not the "residue of putrefaction," and yet he has seen it "increase greatly the crop of wheat and clover." So, too, Mr. Taylor, you have seen a fellow who drinks whiskey freely swell up and grow as fat as a bear, but did the whiskey *feed* or did it stimulate his appetite?

On Dr. Baldwin's third premium, Mr. Taylor is somewhat cloudy and confused. He says of "inorganic matters," "they never undergo the putrefactive process." Now if Mr. T. will take a brick and place it in a wet, cool vault or cave, he will find that it will ultimately crumble into humus. This is putrefaction and a fertilizer. If the brick is resolved into its original elements—silex, lime, &c., &c. he will find that neither of these elements separate or combined *in* the brick is a fertilizer—this is decomposition. The error of the moon now Mr. Editor, is that great writers—and they seem to be conclusive with Mr. T.—have assumed that inorganic matters never undergo the putrefactive process. Who told them this negative proposition? If it be true, let them attempt to prove a negative. The law requires no man to prove a negative simply because it is impossible, but Mr. T. and other great writers assume most conveniently this negative position, and flare up because they are asked respectfully to prove it.

Now, sir, if you cannot prove your assertion, don't be quite so presumptious in promulgating it, nor so pugnacious when you are asked for some facts to sustain you. Mr. Taylor, but for his "pecuniary means," is willing to risk $100 if Dr. B. will prove the converse of the proposition. If the converse cannot be proved, as Mr. T. lustily asserts over and over again, where is the peril to his pecuniary means? And besides, he would have the satisfaction of putting the doctor in a corner—which Mr. T. knows well is not easily done with a truly philosophic writer, who follows strictly the Baconian method of building his theories on *facts*.

Mr. T. in his last paragraph complains that Dr. B. has never once "condescended to notice any objections or inconsistencies," &c. &c. Now, my dear Mr. Editor, I ask you, for the love of the brethren, would it be in good taste for a man who thinks before he writes to spend his time, so valuable to a physician in full practice, in answering writers, many of whom evidently write before they think? Dr. B. I presume has no time to *teach* any body the difference between putrefaction and decomposition. He has no time, and from what I have heard of him, no taste to bandy back such a sentiment as that quoted from Cobbett by Mr. T. The truth is, sir, that the old fogies in agriculture must back out. Dr. B. started with declaring the "*science*" of agricultural chemistry a humbug; and after he said so the Agricultural Society of Maryland, in a solemn resolution, reiterated the same opinion. He declares that nothing applied to vegetation *feeds* plants but that which has in some form undergone the putrefactive process; that whilst decomposition precedes putrefaction it is not necessarily followed by it, and unless so followed it yields no nutriment. Now all this is very simple. If any man can find anything applied to the root of a tree or vegetable in an exhausted sod, which will make it grow, except what has in some form and to some extent undergone the putrefactive process, let him print it. The Dr. says he finds by actual experiment that if an exhausted soil is covered, or as he chooses to call it, is shaded, that the surface of the earth so covered or shaded becomes rich and fertile, and he thus *infers* that the *same* chemical action has taken place, which does take place when you apply manure or any matter which is putrefactive. He finds by experiment that it does not matter *what* the covering substance is—although the effect produced depends much upon its being done right, as in all other cases the way in which you do a thing is almost as important as doing it at all. He tells his brother farmers to take their straw and cover their knolls and spots, and that it will manure, or rather enrich ten times as much ground as it would do if reduced by the putrefactive process to manure, and then spread. This is all very simple—and all he asks is for them to try it. If he is right, he has made a great and sublime discovery. He has got clear of the jargon of the schools, and the Don Quixotism of chemical agriculture. He has doubled and tripled and quadrupled the products of the soil, and thus swelled the individual and aggregate wealth of the country; and if no other man bless him, my blessing shall be on his head.

A Jefferson Farmer.

For the Southern Planter.

Gentlemen of the Virginia State Agricultural Society:

The precarious state of my health and the pressure of private engagements require that I should decline a re-election to the honorable post to which your partiality has hitherto assigned me: and I therefore give this timely notice in order that you may be prepared, at your approaching annual meeting, to fill that honorable office.

I shall ever gratefully remember the kind and constant support of my numerous friends in the society, as well as their hearty co-operation and generous efforts, whilst we have for three years past labored together to establish the prosperity and usefulness of our State Agricultural Society.

Philip St. Geo. Cocke.

Retreat, Sept. 8, 1855.

For the Southern Planter.

Mr. Editor:

Dear Sir,—I have wished to inform you, that I gave last spring a fair trial to gas-tar as a means of preventing the depredation of the bud-worm. My crop of corn was planted, as recommended in the Southern Planter, and in no preceding year have I suffered more from the worm. The season was an unfavorable one for the germination of the grain, the spring being very dry until the 19th of May, up to which date corn came up badly and grew very slowly. I used, too, a small quantity of guano in the drill to force the corn to be strong enough to resist the worm. My decided opinion is, that gas-tar produces no benefit whatever.

Very truly yours,

Ed. T. Taylor.

For the Southern Planter.

OVERSEERS.

Their term of service begins on the 1st of January. This is attended with many inconveniences. It is the most inclement season of the year to move them and their effects to their new home, when the roads are generally bad and the rivers often frozen. Their interest and their employers combines in favor of changing the time to either the 1st of August or of September. This is properly the commencement of the agricultural year. The new overseer will make the necessary preparations for the sowing of the wheat crop, which he will himself reap before the end of his service; will have the care of the fodder and corn which has been made under the charge of his predecessor, and will feel an interest in making early arrangements for the next year's crop. It is a favorable season for the removal of families, and at a time when farm work is least pressing, and exposure is least apprehended. The removing overseer would have the benefit of selling his garden products and his poultry to his successor, or to his employer.

The wheat crop is next in importance to that of corn. It is more likely that the overseer who will reap it, will bestow more care in sowing it than he who will probably never see it during its growth. It will be the more his interest to secure good and abundant provender for the teams and stock under his charge, and to make timely preparations for the ploughing, manuring, and tillage of the crops he will superintend.

In the expediency of the proposed change, every farmer concurs. To accomplish it, the act must be general The difficulty is, how to begin it.

The planter may, perhaps, desire a later day. But will not his interest, too, be promoted by entrusting the tobacco crop to a new overseer on the 1st of August or of September?

A reform may be effected through the means of the State Agricultural Society at its next meeting. E. T. T.

For the Southern Planter.

CHINCH BUG.

Mr. Editor:

Dear Sir:—As the ravages of this insect are attracting considerable attention in almost every quarter of the State east of the Alleghany mountains, and are becoming more frequent than formerly, I would recommend to your readers the practice of sowing buckwheat in their corn fields as a protection against it. A neighbor of mine, Mr. Stout, and myself, both tried it this season, and in both instances the effect was very evident, particularly in that of Mr. Stout, the ravages the bug ceasing the moment it came in contact with the buckwheat.

I also had a buckwheat fallow, and it was very rare to see a bug in that portion of the wheat field, although they swarmed up to the very line. But I regard the experiment at Mr. S's. as decisive of the fact that to a considerable extent the practice will prove successful. Of course, I do not mean to say that this would be of any avail in very dry seasons, when the corn would be destroyed before it attained the height of your knee.

It costs but little to try this, as in all probability, the buckwheat will remunerate the labour, should the corn be lost.

T. G.

For the Southern Planter.

ANALYSIS OF THE TOBACCO PLANT.

RANDOLPH MACON COLLEGE,
Sept. 13th, 1855.

I herewith send you for publication an analysis of the ash of the leaf and stalk of the tobacco plant, made in my laboratory, by my assistant, Mr. Shepard. No time or labor has been spared to have the analysis correct, and without hesitation I commend it to the confidence of those who take an interest in such things. The tobacco was obtained in the month of March, 1854, from the farm of Dr. Wm. H. Jones of this county, and was of the "Orinoco" kind.

	Leaf.	*Stalk.*
Sulphuric acid	2.95 per cent.	4.12 per cent.
Chlorine	5.93 "	14.42 "
Phosphoric acid	6.08 "	6.70 "
Lime	35.83 "	26.34 "
Potash	30.46 "	35.32 "
Soda	2.95 "	1.14 "
Magnesia	6.96 "	8.30 "
Soluble silicæ	1.59 "	.17 "
Charcoal and sand	6.95 "	3.88 "
Iron, merely	A trace.	A trace.
	99.70	100.39

The amount of ash in the dried leaf was 18.47 per cent. We did not determine the per centage of ash in the stalk. For comparison I have arranged the analysis of the leaf after the manner of Johnson, and annexed the analysis of Hungarian tobacco gathered from two localities, found in his large work:

	I. *Analysis of the Viginia Leaf.*	II. *Analysis of Hungarian No. 1.*	III. *Analysis of Hungarian No. 2.*
Sulphate of lime	5.12 p. c.	7.14 p. c.	6.35 p. c.
Chloride of sodium	5.65 "	6.91 "	3.49 "
Choride of potassium	5.50 "	2.21 "	3.93 "
Potassa	27.63 "	26.46 "	12.14 "
Lime	32.07 "	27.87 "	45.90 "
Magnesia	7.11 "	9.72 "	13.09 "
Soluble silica	1.63 "	—— "	——
Charcoal and sand,	7.10 "	12.13 "	8.01 "
Phosphate of lime	8.19 "	—— "	1.49 "
Soda	—— "	.56 "	0.07 "
Iron	A trace. "	—— "	—— "
Phosphate of iron	—— "	7.00 "	5.48 "
	100.00	100.00	100.00

The per centage of ash in the dried leaf of Hungarian No. 1, 21.28, and in No. 2, 23.68.

A remarkable peculiarity about the Virginia leaf in the absence of iron—in the Hungarian iron is found in respectable quantity. Many other points of interest will present themselves to those who will take the pains to inspect and compare the tables.

I have never met with a previous analysis of the tobacco stalk.

CHAS. B. STUART,
Prof. of Chemistry.

For the Southern Planter.

MT. PROSPECT, Sept. 3, 1855.

Mr Editor:

Dear Sir,—I desire through your journal to express my great admiration as to the excellency and completeness of the Threshing Machine built by John Haw of Hanover.

This machine was exhibited at our last annual fair, and this season it has threshed a crop of five or six thousand bushels, doing its work as beautifully and as thoroughly as it was possible for any machine to do, threshing and cleaning the wheat at the same time.

Besides this one, Mr. Haw has built some four five others, (one of which I have,) all of which have worked to the entire satisfaction of those who have them. I do not think I could well say too much in favor of this machine.

I am confident that all who will give it a trial will be pleased with it.

I think for $500 Mr. Haw would build a machine to work 16 horses, (mules,) that would thresh 1000 bushels of wheat per day.

I do not like, Mr. Editor, to appear extravagant, or to run away with the thing; but I do desire to see such a machinist, and he a Virginian, who stands so pre-eminently high where he is known for real integrity and genuine worth, occupy that stand, and meet with that reward that his talents and honesty and his modesty entitles to.

Respectfully, yrs. &c.,
W. H. MACON.

THE LOGAN GRAZIER,

A POEM OF WESTERN VIRGINIA.

By Thomas Dunn English..

At dawn to where the herbage grows,
Up yonder hill the grazier goes.
Obedient to bis every word,
Before him stalks the lowing herd.
Reluctant in the misty morn,
With stamping foot and tossing horn,
With lengthened low and angry moan,
Through drain and hollow, up the hill,
They pass obedient to bis will.

The slender ox and mighty bull—
The grazier thinks them beautiful.
You see less beauty in the herd
Than in yon orange-tinted bird;
You fix your better pleased gaze
On yon broad sweep of emerald maize,
You maples on the hill-side high,
Or on yon field of waving rye.
More pleased with maize, or rye, or trees—
The graziers sight is not on these.
He sees a netted purse of gold,
In every bellowing three-year old.
He sees new comforts round his home,
When buyers down from Tazewell come.

He sees his cabin nigh the creek,
Its mud-daubed chimney changed to brick,
Its rude logs hid by clap-boards sawed,
Split shingles on its roof so broad;
New puncheons on the worn-out floor,
A picket fence before the door,
And cups of tin and plates of delf,
And pewter spoons adorn the shelf.
Close where the rifles hangs on hooks,
On cupboard tops are rows of books—
The Pilgrim of the dreaming John,
And Weem's life of Marion;
The well thumbed speeches of Calhoun,
The pictured life of Daniel Boone;
D'Aubigne's story told so well,
How Luther fought and Crammer fell.
To please his wife a yellow gown,
And beads to deck his daughters brown,
A jack-knife for his youngest son,
A rifle for his eldest one.
All these to him the cattle low,
As up the hill they slowly go.

He fears no ravage of disease.
'Mong brutes so strong and fat as these.
There's salt enough for them in store,
Brought from Kanawha's muddy shore.
The herbage on the hill is good,
The fern is thick within the wood,
There's tender grass in yonder drain,
And pea-vine on the summit plain.
High thought of gain that moment thrills
The grazier of the Logan hills.
He envies not the hero bold,

He cares not who may office hold.
The statesmen's pride, the stout man's limb,
The lover's hopes are naught to him,
His mind three things alone receives—
His wife, his children, and his beeves.
So these may flourish and be fair,
All else around is smoke and air.

Oh, Logan grazier, stout and strong,
Despising fraud, defying wrong,
Brave as thine ancestors who bore
The scars of combat, long and sore,
And fearless met in battle shock,
The wild and painted Shawanock;
True as the rifle in thy hand,
And generous as thy fertile land—
Full oft I've eaten by thy side
Thy cakes of corn and venison fried:
Oft in thy cabin as thy guest
Have stretched my weary limbs to rest.
I love to note thy honest brow,
Staunch friend and true companion thou;
And know no manlier form is seen
Than dwells within thy coat of jean;
Truth fills those eyes so keenly set
Beneath thy fox skin cap, and yet
I would not that thy lot were mine,
I would not that my lot were thine.
Guard thou thy beeves and count thy gold,
Be glad when those great herds are sold.

For me, by midnight lamp, I pore
My manuscript in silence o'er.
Each to the path that suits his feet;
Each toil, for time is moving fleet.
And soon in linen shroud arrayed,
Both in our narrow coffins laid,
It matters not if cattle fair,
Or making songs has been our care.
The poet's and the grazier's form
Shall feed alike the greedy worm;
Shall pass the poet's glowing words,
Shall pass the grazier's lowing herds;
And from men's memory fade away
Both grazier's shout and poet's lay.

From the Genesee Farmer.

RIPENING OF APPLES AND PEARS.

As many farmers and orchardists will be busy in gathering their fruit crop for winter use during this and the coming month, we may be able to give some useful hints.

To have sound and perfect apples through the winter months, it is absolutely necessary that much care should be given in gathering. This should be deferred with the winter fruit as late as practicable and avoid early severe frosts. The fruit should be picked from the tree by means of ladders, and placed in baskets, when it should be assorted and packed at once carefully in new tight barrels. These barrels, after heading, should be removed on sleds to a shed through which the air circulates freely, or they might be protected easily from the dew and rain by placing boards over them. They may be allowed to remain in this situation a week or more, or until the cold is too severe, when they should be transferred to a cool, dry cellar, and into which air may be admitted in mild weather. The barrels should then be placed in tiers upon their sides, numbering upon each head the quality of the fruit contained in the barrel, and the name. The small imperfect but sound fruit is treated in same manner, and marked No. 2, indicating an inferior sort. Apples which are intended for market are frequently assorted into three different classes, the *best*, *good*, and *inferior*—the former being all selected fruit; the *good* containing sound fruit of medium or small specimens; the third being so poor that the fruit is wholly unfit for market, and suitable only for stock or immediate family use. All of this is easily done, yet many whole orchards bring but an inferior price for want of this care.

Too often we find that winter apples are left upon the tree very late in the autumn, frequently till they have been exposed to two or three severe frosts; when convenient they are shaken from the trees, the good and bad poured into barrels or open wagons, or perhaps half a dozen sorts. Afterwards they are emptied promiscuously into bins, barrels or open boxes, where they are expected to keep well through winter. This is a most ruinous method, yet it is practised by at least three-fourths of the farmers; or they adopt another course equally as wasteful in securing the fruit.

Fully one half is lost by this method of gathering, as the fruit ripens prematurely and decays rapidly by being bruised. The decay is very much hastened where several sorts are mixed promiscuously together, ripening at as many different seasons. Those kinds, too, which do not come to maturity till late in the winter or early in the spring, are turned and handled many times when assorting those which are in season during November and December.

Light is found unfavorable to the keeping of fruit, and should be excluded: and it is often noticed that where fruit, particularly pears, is placed in a room above ground, and oftentimes in a very dry cellar, and left exposed to the air they shrivel. They should therefore be kept either in barrels or tight boxes. About the time pears are needed for use they can be removed to a room of higher temperature and kept as closely as before in drawers or boxes, where they will ripen very speedily, and will possess much finer flavor than if allowed to ripen in a cooler place. By treating pears in this way, one variety can be made to last a long time.

Summers pears ought to be gathered a week before ripe; early autumn kinds about ten days or more; late fall and winter varieties ought to be allowed to hang upon the trees as long as they may and escape frost.

ANTISEPTIC PAINT.

We have been frequently asked whether gas tar was good for painting fences and buildings with. The following, from the Country Gentleman, may be an answer.

Its bad smell is an objection with some. But that does not last long.

ANTISEPTIC PAINT.—The Country Gentleman speaks very favorably of Gas Tar as a paint to preserve timber. From the nature of the substance we are inclined to think it possesses this valuable property in a high degree. The paper referred to says:

The preservation of wood is a subject of great and increasing importance. In this country and in Europe, patent after patent has been taken out for various processes of accomplishing this object. Metallic Salts are generally employed, and afford, unquestionably, the means of increasing to a great degree the durability of timber. The high price seems to be the chief objection to their use, and especially to the use of corrosive sublimate.

To exclude the oxygen of the atmosphere is the first thing to be secured—decomposition cannot take place unless oxygen be present in some form or other. The albuminous matter of the sap, too, is a great cause of decay, and the more so, if in a moist state. It acts precisely as yeast in the fermentation of bread. If we boil yeast, its fermenting power is destroyed. By steaming wood we coagulate the albumen (white of egg,) of the sap, and thus, to a certain extent, lessen its liability to fermentation or decay. The exclusion of the atmosphere and water, and the coagulation of the albuminous matters of the sap, or recently formed portions of the tree, are the two great points to be secured in the preservation of wood,—and, we may add, of almost every vegetable or animal substance.

The various metallic or mineral paints secure to a certain extent the former object, and a solution of a metallic sulphate the latter; and we would advocate the use of both articles to a much greater extent than is now practised by most farmers. We hope to live to see the time when every wooden implement on the farm shall receive a good coat of paint every year. Such a practice will pay, now that good timber is getting scarcer and higher every year.

There is a substance, however, that to a certain extent, at least contains, in itself, both these qualities. Gas tar will coagulate albumen, and exclude the air and moisture. It is cheap and easily supplied; why then is it not more generally and bountifully used? In England, hedges take the place of our not very picturesque Virginia fences, and the homesteading is of brick or stone, but the extent to which gas tar is used on the doors of buildings, gates, &c., affords conclusive evidence that, were board fences used, as with us, they would be preserved, if not ornamented with a frequent coat of this odoriferous paint. We do not recollect to have seen it used for this purpose, in this country, except on the magnificent farm of J. S. Wadsworth, Esq., of Genesee, N. Y., where it has been employed for many years in painting board fences, and proves to all what its advocates claim.

The art of preserving timber and wooden implements from decay is one of the most important in the whole range of domestic economy. Little valuable knowledge on this subject has yet been acquired. It is a field of investigation which, to be explored, requires a long series of patient experiment. Time alone can demonstrate the preserving power of any composition. The article from which we have taken the foregoing extract, concludes as follows:

Is prejudice or ignorance the cause of the general neglect of gas tar as a paint and as a preventive of decay? The experience of those who have used gas tar on posts in the ground is, so far as we know, without exception, in favor of gas tar. We have met with one gentleman who thought that, while gas tar retarded the decay of timber in the ground, it accelerated its decay above the ground. We cannot think that there is any foundation for this opinion; if there is, we should be pleased to hear from those who are competent from experience to speak on the subject. We have many such among our readers. Will they not favor us with their experience in the use of gas tar?

Mr. French, of Braintree, Mass., said at one of the agricultural meetings in Boston, that he had made many experiments as to the cost of keeping stock. His horses cost him 53 cents a day, and his oxen $1 per yoke.

TWO ACRE FARM.

We had lately an inquiry from a young lawyer, for information as to the amount he might raise from a sixteen acre farm. We copy the following account of the products of two acres, furnished by a correspondent of the New England Farmer, which were planted with crops somewhat similar to those we proposed for the sixteen acres, and which at the same rate for the sixteen acre surface, would yield over *one thousand dollars*. Such land, must, of course, be in the highest state of tillage; but we doubt the propriety of mixing two crops together, which grow and ripen nearly at the same time, because it is often troublesome to cultivate both at once, and one of them operates detrimentally, as weeds do, on the other. When one succeeds the other in most of its growth, as turnips with beans, the case is different. Planting vegetables with young fruit trees we have found to injure, like weeds, the growth of the trees, unless with young seedlings, whose roots had not extended far.—*Country Gentleman.*

Mr. Editor: The article recently in the *Farmer*, giving an account of a "one acre farm, has led me to think I might possibly make a statement of facts that would be valuable, and I forward the same to you, hoping you will use it just as it deserves.

Nine years ago last spring I came into possession of a two acre farm, and at that time it was barely possible to get one ton of hay from the whole of it, such was the state of cultivation it was in. It was all in mowing at the time, except one-eigth of an acre that I sowed oats on, and they were so small that a good stout grasshopper could eat the heads off by standing tiptoe. Circumstances prevented me from making much improvement until 1849 or '50, and new for the results of the past dry season:

2½ tons hay, at 8 per ton,	$20 00
12 bushels corn, at 80 cents per bush	9 60
Corn Fodder	1 00
2 loads pumpkins	1 00
21 bushels potatoes, 20 cents per bush	6 30
2 bushels beans, $1 50 do do	3 00
38 bush carrots, 30 cents do do	11 40
32 bush turnips, 20 cents do do	6 40
10 bush graft apples, 50 cents do	5 00
Garden sauce	5 00
Growth of 140 standard apple, plum, cherry pear trees, 10 cents each	14 00
Growth 250 nursery trees, 2d year, 5c each	12 50
Do 1100 do do 1st year, 3c each,	33 00
Do 1000 seedlings, ½c each	5 00
Total	$133 20

Perhaps some may think it is impossible to have so much on so small a surface. I would just say that my beans and carrots grew amongst the nursery trees, and the most of the turnips amongst the potatoes. On one small patch I raised a good crop of green peas, potatoes and turnips; the peas were planted in the hills with the potatoes, and the turnips set both ways between the hills, getting three good crops on the same land in the same season, and neither crop appeared to injure the other—at least they all did well.

Now, if this will stimulate another two acre farmer to do the like out of nothing, I have my reward.

From the Baltimore Sun.

BENEFITS OF DROUGHTS TO LAND.

[Laboratory of State Chemist, No. 29, Exchange Buildings.]

It may be a consolation to those who have felt the influence of the late, long and protracted dry weather to know that droughts are one of the natural causes to restore the constitutents of crops and renovate cultivated soils. The diminution of the mineral matter of cultivated soils takes place from two causes:

1st. The quantity of mineral matter carried off in crops and not returned to the soil in manure.

2d. The mineral matter carried off by rain water to the sea by means of fresh water streams.

These two causes, always in operation, and counteracted by nothing, would in time render the earth a barren waste in which no verdure would quicken and no solitary plant take root. A rational system of agriculture would obviate the first cause of sterility, by always restoring to the soil an equivalent for that which is taken off by the crops; but as this is not done in all cases, Providence has provided a way of its own to counteract the thriftlessness of man, by instituting droughts at proper periods to bring up from the deep parts of the earth food on which plants might feed when rains should again fall. The manner in which droughts exercise their beneficial influence is as follows: During dry weather a continual evaporation of water takes place from the surface of the earth, which is not supplied by any from the clouds. The evaporation from the surface creates a vacuum, (so far as water is concerned,) which is at once filled by the water rising up from the subsoil of the land; the water from the subsoil is replaced from the next strata below, and in this manner the circulation of water in the earth is the reverse to that which takes place in wet weather. This progress to the surface of the water in the earth manifests itself strikingly in the drying

up of springs, and of rivers and streams which are supported by springs. It is not, however, only the water which is brought to the surface of the earth, but also all that which the water holds in solution. These substances are salts of lime, and magnesia of potash and soda, and indeed whatever the subsoil or deep strata of the earth may contain. The water on reaching the surface of the soil is evaporated and leaves behind the mineral salts, which I will here enumerate, viz: Lime, as air-slaked lime; magnesia, as air-slaked magnesia; phosphate of lime, or bone earth; sulphate of lime, or plaster of Paris; carbonate of potash, and soda, with silicate of potash and soda, and also chloride of sodium or common salt. All indispensable to the growth and production of plants which are used for food. Pure rain water *as it falls* would dissolve but a *very* small proportion of some of these substances, but when it becomes soaked into the earth it there becomes strongly imbued with carbonic acid from the decomposition of vegetable matter in the soil, and thus acquires the property of readily dissolving minerals on which before it could have very little influence.

I was first led to the consideration of the above subjects by finding, on the re-examination of a soil which I analysed three or four years ago, a larger quantity of a particular mineral substance than I at first found, as none had been applied in the meantime. The thing was difficult of explanation until I remembered the late long and protracted drought. I then also remembered that in Zacatecas and several other provinces in South America, soda was obtained from the bottom of ponds, which were dried in the dry, and again filled up in the rainy season. As the above explanation depended on the principles of natural philosophy, I at once instituted several experiments to prove its truth.

Into a glass cylinder was placed a small quantity of chloride of barium, in solution; this was then filled with a dry soil, and for a long time exposed to the direct rays of the sun on the surface. The soil on the surface of the cylinder was now treated with sulphuric acid, and gave a copious precipitate of sulphate of baryta.

The experiment was varied by substituting chloride of lime, sulphate of soda, and carbonate of potash, for the chloride of barium, and on the proper re-agents being applied in every instance, the presence of those substances were detected in large quantities on the surface of the soil in the cylinder. Here then was proof positive and direct, by plain experiments in chemistry and natural philosophy, of the agency, the ultimate, beneficial agency, of droughts.

We see, therefore, in this, that even those things which we look upon as evils, by Providence are blessings in disguise, and that we should not murmur even when dry seasons afflict us, for they too are for our good. The early and the later rain may produce at once abundant crops, but dry weather is also a beneficent dispensation of Providence in bringing to the surface food for future crops, which otherwise would be forever useless. Seasonable weather is good for the present, but droughts renew the storehouses of plants in the soil, and furnish an abundant supply of nutriment for future crops.

James Higgins,
Maryland State Agricultural Chemist.

TO PRESERVE WHEAT FROM WEEVIL.

It is hardly necessary to say that as soon as possible after the wheat is dry after harvest, it should be threshed out, for if left in small shocks or hand stacks, the weather, the weevil and the bird, will soon bring down a very respectable crop to a very short one. I therefore hasten it into large stacks and barn, and thresh it out as soon as my other avocations will permit me. The first year or two I was much perplexed in sunning and keeping, or trying to keep it free from weevil, by sunning, and thought that this, (the weevil) if nothing else, would prevent persons from attempting to grow wheat to any extent. I have since adopted a plan which has been attended with entire success. When having my wheat sunned, I noticed that when a barrel of wheat was left for any length of time without sunning, the weevil commenced their ravages on the wheat exposed to the atmosphere; the top of the wheat for two or three inches would be completely destroyed, and below that the wheat completely free from weevil. Along the joints of the staves and at the bottom also, would be weevil eaten; in fact, where the atmosphere came to the wheat through crack or crevice, the weevil hatched out and permitted the atmosphere to penetrate still deeper in. I also noticed that if I left a small bulk in a barrel or box, that it was soon destroyed. I therefore came to the conclusion that if I could exclude the atmosphere from it I could save much time in sunning. I therefore built me a small framed wheat house and daubed it well on the inside with clay, floor and sides, cleaned out my wheat and put it in at a door at the top of the house; it did not quite fill the house, and I thrust straw in the intervening space between roof and wheat, and packed it in closely. I was completely successful, and found nothing to complain of but the scaling off of the clay, and that it had to be daubed every year. Finding wheat remunerative, I extended my crop, and harvested in 1852 a crop of one thousand bushels. There was but slight demand for it, as every one who attempted to raise wheat was quite successful, and I was at some loss how to store it away, but finally appropriated one-third of my pick room to it, and adopted the following plan to exclude the atmosphere: I took up the floor and filled between the sleepers with straw,

replaced the floor and laid it close; nailed slats on the studding, and thrust straw between them and the weather boarding, thus making a wall of straw in addition to the weather-boarding. Three sides of this division of the pick room was done in this way, and a board partition on the fourth side, this had no straw. I now threshed out my wheat and put up in the chaff—the division was full to within a foot of the top; this space was closely packed with straw. Twelve months afterwards I cleaned up from this pen a fraction under five hundred bushels of wheat, and there was no sign of flying weevil, except a few on the side that had no wall of straw. My experience, therefore, for ten years, is that to exclude wheat perfectly from light and the atmosphere, is to secure it from the effects of the flying weevil. I act upon the same principle with my corn, and house it in as large a bulk as possible, and find the centre of a large crib will be sound long after the sides and bottom have been destroyed by the black weevil.—*American Cotton Planter.*

BIRDS AND INSECTS.

Wilson Flagg, in a late number of Hovey's Magazine, makes five classes of insects, and as many of birds, acting as natural checks upon the increase of insects.

The swallows are the natural enemies of the swarming insects, living almost entirely upon them, taking their food upon the wing.—The common martin devours great quantities of wasps, beetles and goldsmiths. A single bird will devour five thousand butterflies in a week. The moral of this is, that the husbandman should cultivate the society of swallows and martins about his land and outbuildings.

The sparrows and wrens feed upon the crawling insects that lurk within the buds, foliage and flowers of plants. The wrens are pugnacious, and a little box in a cherry tree will soon be appropriated by them, and they will drive away other birds that feed upon the fruit; a hint that cherry growers should remember this spring and act upon.

The thrushes, blue-birds, jays and crows prey upon butterflies, grass-hoppers, crickets, locusts and the larger beetles. A single family of jays will consume 20,000 of these in a season of three months.

The wood-peekers are armed with a stout, long bill, to penetrate the wood of trees, where the borers deposit their larvæ. They live almost entirely upon these worms.

[*Rural New-Yorker, April.*

The Tamarind in Virginia.—Wm. M. Singleton, Esq., of Winchester, communicates the following to the Commissioner of Patents:

"Of all the ornamental trees propagated among us, either foreign or native, there is none, in my judgment, more desirable than the tamarind. Its growth is rapid, its form symmetrieal, its foliage beautifully delicate, and it is altogether highly ornamental; besides, it is perfectly free from blight, as well as from the depredations of insects. If cultivated on our Western prairies, it would doubtless form a valuable acquisition.

"From the growth of some tamarind seeds which I obtained at a confectioner's shop some eight years since, I have a tree standing in my yard, eighteen inches in circumference. The past season it perfected its fruit, which, in quality, was equally as good as that imported.—The seed may be sown in drills, about four inches apart, and covered from two to three inches deep, with light, rich soil. They may be sown either in the fall or spring. If in the latter, they should be exposed to the weather during the winter previous, in order that their hull or coverings may be acted on by the frost. When grown to the height of three or four feet, the young trees may be transplanted in the sites where they are permanently to remain."

The California Quarries are yielding some of the finest white, black and variegated marbles in the world. They are said to be fully equal to the finest kinds of Egyptian or Italian, and are found in exhaustless quantities.

CONTENTS OF NUMBER X.

PAYMENTS TO THE SOUTHERN PLANTER,

To the 29th of September, 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:

W F Watts January 1856		$1 00
Jas Collins January 1856		1 00
W P Waugh September 1856		1 00
W P Quesenbury January 1857		5 00
E Henshaw July 1856		1 00
W D Snead January 1856		1 00
W L Waring January 1856		1 00
H Taylor January 1857		2 00
N Quesenbery January 1856		1 00
J W Goss July 1856		4 00
W C Graves July 1856		1 00
E C Satchell September 1856		1 00
W S Dupree July 1856		
G L Bayned July '56		
Capt G A Wood July '56		
C O Lipscomb July '56		
W H Eubank July '56		
Capt R H Williams July '56		
W B Purcell July '56.	Club	10 00
W H Pettus July '56		
T B Purcell July '56		
R E Knight July '56		
J L Watkins July '56		
R Lipscomb July '56		
P L Lipscomb July '56		
Col S D Crawford August '57		5 00
D A Tapscott Dec pd J T Ellis		7 50
P J Carrington January 1856		1 00
Geo Turner Sept '56		1 00
J T Hoskins July '56		5 00
W A Dearing Nov '55,		1 00
P Saunders April '56		1 00
E G Leigh January '56		1 00
W A Perkins Dec '55		1 00
J F Moses January '56		1 00
R G Wood Jan '56		1 00
Capt J Robinson Oct '56		1 00
John Hoffman July '58		5 00
S A Brock Sept '56		1 00
J M Adam Sept '55		1 00
J Hightower January '56		1 00
A R Anderson Sept '56		1 00
R M Whaley January '56		1 00
J Dryden April '55		3 00
Dr J Mayo Jan '56		1 00
Gen J H Hammond June '56		2 00
H T Watkins Oct '56		1 00
T M Hughes Oct '56		1 00
T J Preston April '56		1 00
D O Witt April '56		1 00
F Slaughter July '56		3 00
W Fitzgerald Nov '56		2 00
Capt W H Carter Oct '56		1 00
A B Nichols July '56		2 00
E A Tilman Nov '56		1 00
Col R R Brown January '57		1 50
E L Travis Jan '57		1 00
Thos Staples July '56		2 00
H M Dickinson July '56		1 00

RICHMOND MARKETS, October 1, 1855.

WHEAT--White $1 95@$2 00; Red $1 90@$1 95; per bushel.

FLOUR---Family, $10 50@11 50; Superfine, $8 75 @9 per barrel.