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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.

C. T. BOTTS, Editor.

Opposite Merchants' Coffee House, Main Street.

VOL. I.

RICHMOND, DECEMBER, 1841.

Nos. 11 & 12.

WHEAT.

What is the cause of the universal failure, of late years, in this great staple of Virginia? This is a most important question to the southern farmer, and we have been very sedulously endeavoring to obtain a satisfactory response to the inquiry. Is this important product to be abandoned in Virginia? Are our great manufacturing mills, the source of so much wealth, to go down? Is our unrivalled reputation in the flour market to be lost; or are our farmers to continue the cultivation of this crop only to see their hopes blasted, just at the moment they expect them to be realized? We sincerely hope that we shall not be compelled to choose between two such terrible alternatives. We know no substitute for the wheat crop in Virginia. It was formerly the great source of wealth to our farmers: now it must yield to tobacco, and even, we believe, to corn and oats. Much of our red clays is unsuited to the growth of these products, whilst they are peculiarly adapted to wheat and clover. How would we gladden the hearts of the proprietors of such soils, if we could point out the means by which the wheat crop could be freed from the precariousness and uncertainty which have attended it of late.

Many facts that we have gathered have brought our minds to the conclusion that all the evil influences operating on this valuable crop may be dispelled by a little management and a superior mode of cultivation. We believe that less attention has been paid to the cultivation of this crop than any other known in Virginia; the great reason for which is, that, heretofore, it has not been needed. But of late years a change has taken place either in our soil or climate, that requires to be counteracted by a corresponding action on the part of the grower.

In the first place, we have ascertained by repeated inquiries, that the best farmers, those whose fields are most nicely prepared and in the highest state of cultivation, invariably suffer least. In the next place, we are satisfied that

by far the greater part of the injury to this crop is sustained within a few days of its maturity, and that the earliest crops are universally the best. Indeed we were informed by a very intelligent and observant miller, with whom we sought an interview on this subject, that he had remarked, that the failure had been concomitant with the abandonment of the early varieties. Is it not a fact that thousands of bushels are annually destroyed by rust, induced, as we have every reason to believe, by a state of atmosphere peculiar to our present harvest season? Would not thousands of bushels have been saved, not only last year, but the year before that, and the year before that, if the wheat could have been reaped a fortnight earlier than it was? How many days difference will richer ground and superior order make in the growth of the wheat? Will not this alone take it out of the jaws of its devouring enemy?

But some experiments lately made by Mr. Hannam in England, which are most minutely reported in the Quarterly Journal of Agriculture, go to prove, that wheat can be reaped to the greatest advantage a fortnight before it is ripe. These experiments were made, it is true, upon a very small scale, and such are not always to be relied on, but they seem to have been conducted with great care and impartiality, and have been confirmed by subsequent statements made in the agricultural papers both of Europe and America. Indeed, we have conversed with several of our own most distinguished millers and farmers, who are satisfied of the correctness of Mr. Hannam's conclusions. The experiments made by this gentleman were upon the same crop in three stages. First he cut a portion of it *green*; a fortnight after he cut another portion of it in what he calls its *raw* state; and lastly, he cut another portion a fortnight after that, when it was *ripe*. He found the *raw* to excel the *ripe* and *green*, both in measure, weight, and value in the market. The *green* was inferior to the other two, except in the nutritious matter of the

straw, in which it excelled the raw, which was again superior to the ripe.

Mr. Hannam thus describes the appearance presented by the wheat in its *raw* state:

"The straw, though appearing at a distance green, when examined closely, was of a hue fast approximating to yellow; while, for about a foot upwards from the ground, it was quite yellow."

By the term *ripe*, he says, "I don't mean that degree of ripeness when the straw breaks, the ears curl, and the grain shakes out, but that condition in which it is customary to commence reaping it—when the straw from the roots to the ear is uniformly yellow and has lost all symptoms of vivid health."

If then it is not only practicable, but desirable to cut the wheat crop a fortnight earlier that it is generally secured, is not this a circumstance of which we may avail ourselves, to the infinite diminution of the ravages of the fly and rust?

It must be confessed that our wheat crops suffer much sometimes from being winter killed; now whilst we think, that higher cultivation will, by strengthening the root, in a great measure, remedy this evil, we believe that *spewing* by which it is caused may be almost wholly prevented by a thorough system of under-draining.

So that we say to the wheat growers of Virginia, be not dismayed at your repeated failures. Do not dream of abandoning this great staple to which your soil, your habits, and education, are adapted. Let your difficulties only inspire you with a determination to overcome them by increased attention and energy. We believe you have them all in your power, and may subdue them to your will.

For the Southern Planter.

Mr. Editor,—For the last twenty-six years I have cut down my corn on the first day of September, and may almost say I have never had a heated or moulded ear. The consequence has been, that I have never been compelled to invade my springing wheat with cart-ruts, every one of which the winter rains would have converted into a gully. There is no doubt you will say about the advantages of getting off your corn crop before you commence sowing, but how do you prevent your corn from spoiling? Simply, I answer, by putting it up in long, *narrow* pens through which the air can penetrate. Make your pens as long and as high as you please, but never let them be more than three feet through. I generally use fence rails for the

sides, and pieces of old rails for the ends. By this means no ear of corn can be more than eighteen inches from the air, and by this means, I repeat, any tolerably forward corn may be penned on the first of September and preserved perfectly sound. This little secret is worth to those who did not know it before ten times the cost of your subscription. The pens should, of course, be protected by a sloping roof of plank, raised twelve or eighteen inches above the corn.

Your friend,

W. N.

Louisa, Nov. 3, 1841.

The above is an important statement, reasonable in itself, and vouched for by one of the most respectable gentlemen in Louisa; his name is at the disposal of private inquirers.

To the Editor of the Southern Planter:

My Dear Sir,—As you request communications upon the subject of household recipes and domestic economy, I take the liberty of informing you that I have been for several years substituting the flowers of the well known weed, called *life everlasting*, for hops. Five or six years ago I was travelling through the county of Amelia, and observed an old negro woman in a field by the way-side very busily employed in gathering these flowers. To my inquiries concerning the use to which they would be applied, she told me that her mistress used them instead of hops in making yeast. I laughed, and thought people must be put to it indeed when they gathered such weeds to make bread of. As I approached home I happened to observe a large field full of the *life everlasting*; I gathered a quantity of the flowers, and carrying them home, related the circumstance to my wife; she tried them and from that day to this I have never bought a pound of hops. These are in no respect inferior, and I have never seen more beautiful bread than that made up with the yeast of these flowers. Every year we send out and gather a bag of them, which is hung up and keeps as well as a bag of hops. Hoping this communication may be the means of saving some expense and a little trouble to many of your numerous readers, I remain,

Your obedient servant,

JOHN TURPIN.

Manchester.

For the Southern Planter.

MANGE.

I see, Mr. Editor, that you recommend on the authority of Mr. Goode, arsenic for mange. I have kept a large pack of hounds, and been much troubled with this disease. I have tried the arsenic and turpentine as recommended by Mr. Goode. It is good, but a little dangerous.

I dislike to keep poisons about the house. I have found the following simple remedy more efficacious:—Mix pounded sulphur with common lard, and let the dog eat as much as he pleases, then annoint him well down the middle of his back and behind his ears with the balance. Persisted in two or three times this will certainly effect a cure.

Yours,

J. P. C.

For the Southern Planter.

Mr. Botts.—Though not a practical farmer, I feel a deep interest in the prosperity of our agriculturists, and most heartily rejoice that the attention of the judicious and reflecting is steadily withdrawing from the wild and visionary schemes and speculations which have lately swept, like a pestilence, over our land, and is centreing on this branch of labor, now confessedly the most important to the best interests of our state. I do not flatter when I say, that I think your valuable and cheap paper better calculated to produce practical and lasting benefit to our farmers, than any I have ever seen. If you can accomplish the plan which you have so often pressed upon the attention of your agricultural readers, by inducing them to contribute, under the sanction of their own names, their several experiences, in every matter relating to farming, you will accumulate a mass of information, which must have a most important and beneficial effect on this great interest.

You will think it strange, after such a preface, that I should depart from the plan so highly commended; but being no farmer, as I above remarked, and having no experience to communicate, my name could answer no good purpose, and might prevent the subject I intend to allude to, from receiving the attention it merits.

It seems that the smut in wheat is becoming an engrossing topic among the wheat growers, and any information calculated to throw light on the subject, would receive attention. I do not mean to propose a remedy for this evil, or to discuss the relative merits of those proposed—but merely to say to my agricultural friends, that they have taken this entangled skein by the wrong end, and I fear they will have much trouble in unwinding it. A judicious physician will never prescribe for a disease unless he knows, or believes he knows, its *true* character, nor will he advise a course of preventives unless he knows the *cause* which generates the disease. Let the wheat growers apply this principle and they may hope for success—scarcely otherwise. The following questions may lead some of your readers to institute experiments, by which the desired information may be obtained.

1. What is the character of the disease in wheat called the smut?

2. What are the causes which produce it? Are they atmospheric? or are they derived from the soil?

3. If atmospheric, what are the conditions of the weather which are productive of the evil?

4. If from the soil, what are its peculiarities?

5. If healthy and unhealthy seed are sown together, is the disease communicable by the diseased to the healthy seed, and does it manifest any effect on the plant before the head forms?

6. Does the soaking the seed in the various solutions proposed accomplish any other object than the separation of the healthy from the unhealthy seed? and would not plain water have the same effect?

7—and lastly. Do these several solutions proposed for soaking the seed give any virtue to the seed itself? or do they impart any property or any material to the soil, which being taken into the plant, protect it from deleterious influences, whether derived from the atmosphere or the soil? and would not the application of the remedy to the soil have the same good effect?

These inquiries deserve the attention of our farmers, and a few experiments judiciously conducted, might lead to a satisfactory solution of many of the difficulties which now surround the subject.

B.

ASPARAGUS.

It will be remembered, by those in this vicinity at least, that Gen. Richardson obtained a premium from the Henrico Agricultural Society, for the extraordinary asparagus exhibited by him at their fair last spring. Since that time, we have been requested, more than once, to obtain for publication the General's mode of cultivating this delicious vegetable. With this request we have complied in the article below, which was furnished by the General with that readiness which he always displays to advance the interests of agriculture.

Dear Sir: I give you, not as you have requested, "directions for cultivating asparagus," but a briefly as I can, the manner of cultivating mine; premising that so far as I know, there is no skill or mystery involved in the matter.

The roots (then two years old) were purchased of Mr. John Carter—planted in the month of March, in trenches 1 foot deep, 12 inches wide and 5 feet apart—the crowns of the roots when set in the bottoms of the trenches, so that the lateral roots interlocked, being about 12 inches from crown to crown. Previous to planting, stable manure was spread over the bottom of the trenches, an inch or two deep, the roots were

then set and covered with about as much earth, well pulverized, and the whole surface kept free from grass and weeds through the year. These were the directions given me by Mr. Carter. By the end of the first year, the trenches were filled up by the ordinary process of weeding, to within 2 or 3 inches of the surface; I cut off the tops, filled the trenches to the surface with stable manure, and very early in the spring drew up the earth so as to form a ridge over each row of roots—the produce was more than sufficient for my family. We cut none after the month of May in the second year, but kept the beds as before, clear of weeds and grass, and in the fall, before the berries began to drop, the tops were cut down and removed.

Finding that by the ordinary method it would require more time and labor to dress the beds than I had to spare, and supposing it would be better to apply the manure near the roots than on the surface, I split the ridges with a single horse plough the next season, running twice on each bed, removed the earth left by the plough with broad hoes, and put in an inch or two of fresh stable manure. The garden line was then set over the centre of each row of roots, about 12 inches above them, the earth (well pulverized) drawn up to the line, first from one side and then from the other, with hoes, so as to form a ridge or bed 14 or 15 inches high—the line then removed, the bed raked over, and that completed the dressing. The produce was abundant, large, fine and well bleached. I have continued this practice ever since—the beds were never forked, but when they become dry and hard on the surface, a dressing with iron tooth rakes, puts them in good order again.

The crown of the root from which the shoots are thrown up, seems to increase in size every year, buds forming upon buds, which give it a conical shape. I observe that more and more of these crowns are visible and are cut, in every succeeding year's dressing; but it does not appear to injure them. Forking, I suppose, injures them quite as much or more. I observe also, that the lateral root or feeders, have spread across the intermediate space between the beds, and think it highly probable it might be better to apply the manure there than to the crowns. I tried the experiment last spring on a small scale, but without any visible effect, until the tops were suffered to grow up: it was perceptible in them, though it had not been in the shoots cut for the table, probably because the manure was applied too late.

My success in raising this plant, so far as it depended on my own management, is entirely accidental. I never planted, or owned, or dressed a bed of it before—never heard of its being dressed in this way, and adopted the plan at first to save time and labor, which I had not to spare. I have thirty-nine beds (one row of roots

in each) sixty feet long, which are usually dressed by four men in a day and a half.

You say that your inquiries of me are for the information of others. Allow me to recommend to them and to you, applications to Mr. John Carter, at his nursery and vineyard near the city, not only for supplies of roots, but as the best authority in every branch of horticulture. I have always succeeded when his advice was followed, and always failed when I neglected it.

Very respectfully,

Your obt. servt.

WM. H. RICHARDSON.

For the Southern Planter.

TOP DRESSING PASTURE LANDS.

Henrico, Nov. 29th, 1841.

Dear Sir,—I have been very much interested with two communications in the September and October numbers of your paper, on the subject of manuring, over the signatures of "W. W." and "A Hanoverian," and I had hoped that your invitation to subscribers to enlarge the discussion would have elicited many valuable articles on this most important question. I am sorry to find from your last number that your invitation has been unheeded, and the discussion at once abruptly terminated. With the view of calling public attention to it again, I have determined to offer you my views, which you can publish or not as you think proper. The point in dispute between "W. W." and "A Hanoverian," is one which has excited great interest in the agricultural world, for some years past, and is still undetermined. I admit with you, Mr. Editor, that the plan of "A Hanoverian," (ploughing in manure,) is that which is most commonly pursued, but I am persuaded from personal observation, and information derived from other sources, that the course recommended by "W. W." (top dressing) is rapidly gaining ground, and is infinitely preferable. If it can be shown that there is no greater loss or expenditure of the fertilizing principles of manure, in this last than in the first mode, then its superior advantages for convenience will be at once manifest to every practical farmer—among these I will only enumerate two. In the first place instead of hauling your straw, leaves, weeds, &c. (I take it for granted that every good farmer does haul these things) into your farm pen or stable yard, you haul them at once to the field, thereby saving half or nearly half the labor of hauling, and enabling you to manure nearly double surface. In the second place you can, adopting this mode, apply your manure at all seasons of the year when not engaged in other farming operations. On the contrary, by the other plan, you can only apply it in the spring and fall, and then only when the land is in

order for ploughing. There are other advantages in this method, which I could enumerate, but as they will readily suggest themselves to the minds of all practical farmers—and I wish to be brief—I shall content myself with these two, believing them to be most important.

We now arrive at the most difficult points in the discussion—what I suppose to be the gist of the matter in dispute between “W. W.” and “A Hanoverian,” viz: In which mode of application does the same amount of manure act most beneficially? Does the “mere covering” of the land increase its fertility? If so, *quo modo*?—These, Mr. Editor, are very important matters, involving the whole question of the *modus operandi* of manures, and I approach them with great diffidence, having no expectation of answering them satisfactorily, but resolving to throw out the suggestions of my own mind, hoping that abler heads may be induced to investigate the subject, and give us, through your valuable journal, the results of their researches. In regard to the first question, I have no hesitation in declaring it as my firm belief, that the same quantity of manure, either animal or vegetable, decomposed or undecomposed, will produce more *fertilization* applied to the surface than when ploughed in; and I fully agree with “W. W.” that the “mere covering of the land makes it wonderfully productive;” and I moreover strongly incline to the opinion, that the “mere covering” is one of the great secrets of the superiority of his plan. If this opinion be well founded, of which I feel firmly persuaded, despite the long array of authority in opposition, what a wonderful revolution in agricultural improvement would be effected by its general adoption.

Let us inquire what are the advantages to be gained by subjecting our vegetable manures to the “trampling process?” For the life of me I cannot see one of any consequence. It is true we mix them with the excrements of our cattle, and perhaps can distribute the animal manure more equally or uniformly on our fields; but will any one contend that this mere convenience can compensate for the immense additional labor? This reminds me, Mr. Editor, of the old fashioned mode of sowing turnip seed, mixed with ashes or sand. If hauling *litter* into our farm pens, could by any possibility increase the animal excrements, then truly it would be a wonderful advantage. Will the friends of the trampling process tell us that a heap of vegetable matter cut to pieces with the hoof and mixed up with animal matters during the winter gets into a prodigious fever and sweat, and in the spring becomes perfectly mellow, assumes a fine black color and is exceedingly rich, &c. Now all this I do not gainsay, but I should like to be informed in what manner that same heap of vegetable matter has acquired any of the elements

necessary to fertilize land which it did not possess when first deposited there, of course excepting the animal matter. On the contrary, has it not lost nearly or quite 50 per cent. during the operation of sweating? and notwithstanding the addition of animal manure, the heap has lessened nearly one-half. What has become of it? Gone, gone. We have lost from our compost bed enough of carbonic acid gas, ammonia, nitrogen, and other fertilizing gases, to have nourished a whole field of corn. Again, in the spring of the year this manure is generally carried to the field and deposited in small heaps.—After it is all hauled out, all hands turn to scattering, and it is thinly spread out and exposed for 24 or 48 hours longer before it is ploughed in, and then perhaps, imperfectly.

Mr. Editor, did you ever bring your nasal organ within the range of smoke ascending from one of these heaps of manure when being dug into in the spring? If you have not, I can assure you you would be in almost as much danger of losing your breath as if you had applied to the same organ a wide, open mouth bottle of aqua ammonia. Why sir, if the nutritious gases escaping from a heap of this description every five minutes could be sufficiently diluted, and applied, it would afford a week's supply of food to a moderately sized field of grain. This too, escaping at a period when there is no growing crop, not a blade of grass to desorb or detain the smallest particle. It is all gone—vanished into thin air. Seriously, I have no doubt but that the loss at this period is immense, and has not, I fear, sufficiently arrested the attention of farmers. I contend that by adopting “W. W.'s” plan none of this loss occurs, or at least, comparatively little. When the undecomposed vegetable matter is spread upon the pasture land in the spring or summer, the decomposition, or more properly speaking the combustion, is very slow, and the various elements which it contains are evolved very gradually. Those which are volatile, the carbonic and nitrogen gases for example, are absorbed as rapidly as they are yielded, by the grass and weeds of the field, and the nutritive mineral bases not volatile, and which are equally necessary to the growth of plants, are carried into the earth, by the rains and snows, as fast as they are liberated from their chemical combinations, and taken up by the roots of plants, causing an immense growth of weeds, and cover for the land, and these in their turn restoring to the earth not alone the food derived from the top dressing, but adding their original stock to the capital.

I will close my communication (already too long) by adding a few words in reference to the last query: Does the mere covering of land increase its fertility? Although I have expressed the opinion above that it does, I fear, Mr. Editor, I cannot satisfactorily account for it. I will,

however, present the reason which has occurred to my mind, hoping that if any one can account for it more satisfactorily, he will not hesitate to do so, through your columns. We know that neither heat nor moisture alone is sufficient for the decomposition of animal, vegetable or mineral substances, but there must be a combination of both these agents. I therefore suppose that a top dressing of straw, leaves, &c. prevents the rapid evaporation of moisture from the land, thereby preserving it for a much longer period in a condition favorable for the development or evolution of those substances, vegetable, animal and mineral, necessary for the growth of plants, and that, therefore, a much larger amount of this nutritive matter will be furnished for succeeding crops than if the surface of the land had not been covered. Respectfully,

J. R. G.

We are happy to present to our readers another article from the pen of Mr. Morriss, upon the management of Tobacco. We have assurances from high authority that his dissertation is more thoroughly practical and useful to the planter in Virginia than any other that has ever appeared in print. The numerous inquiries from our readers for the continuation of what we have published, evinces the great interest his essays have already excited. We hope Mr. Morriss will not remain content with the laurels that he has won, but that the meed of public approbation will only stimulate him to further exertions in the cause of agriculture.

We have been at some pains to procure a good cut of the prize of which Mr. Morriss sent us a drawing, and which we are inclined to think the best and most economical in use. It will be found at the foot of this article.

TOBACCO.

Continued from page 144.

After the stems and stalks of the tobacco are thoroughly cured, and after a few hard frosts, a part of the crop may be taken down for stripping, so that the hands may be employed in rainy weather, though planters generally prefer that the larger part should remain hanging up in the houses until the last of November or December. Before taking down the tobacco, it will be necessary to haul straw to each house sufficient to cover the top, end and sides of the bulk, at least six inches thick.

When a season of soft, damp or rainy weather occurs, and the stems will bend their entire length without breaking, the tobacco is taken down, pulled off the sticks, and laid on a bed prepared by placing the sticks side by side on poles, and covered with a thin coat of straw.

The length of the tobacco sticks about 4 feet 3 inches constitutes the width of the bed, and a sufficient length to hold the tobacco to be taken down; so that the bulk will not exceed 4 or 5 feet in height.

After the tobacco is neatly packed down, it should be covered with straw, and with tobacco sticks, all around and over the bulk, to prevent its drying, and thereby avoid much inconvenience and loss which will be sustained if it dries in bulk.

When the stripping commences, the negroes who have had most experience, and who are considered best judges, sort the tobacco. The richest, longest and most perfect leaves are selected for the 1st quality; those which are less perfect or rich, or which have not sufficient length, for the 2d quality; and the refused leaves for the 3d quality, or lugs.

The first and second qualities are tied in bundles of 5 or 6 leaves, with the half of a fine small leaf, neatly wrapped around the heads, and about an inch down the bundles; carefully observing that the leaves in a bundle be as near as possible of the same length. The lugs are tied in bundles of a dozen or more leaves, without much care. The first and second qualities are neatly placed away to be afterwards bulked; whereas it is better to have a hogshead ready, and prize the lugs as soon as stripped. This saves labor and prevents loss.

When sufficient quantities of 1st and 2d qualities are stripped to form a bulk of each quality, beds are prepared as before described; two bundles of tobacco are taken up, the heads placed even, and the bundles are straightened, pressed and drawn through the hands of one person, then given to another, who likewise presses the bundles and draws them through his hands, and passes them to the bulker, who packs them down; two more bundles are treated in the same manner, and placed as close as possible to the first two; and so on the whole length of the bed; the bulker then passes to the other side, and places the bundles in the same manner, lapping the tails about one third of the length of the bundles, and continues first one side of the bulk and then the other, until the bulk is finished. The bulk is then covered with plank, and a few rocks or other weight put on.

These bulks remain in this situation until the month of March, when the tobacco is placed on thin sticks, smoothed with a drawing knife, and in dry weather hung up in the house. The sticks are placed about 10 inches apart, so as to admit a free circulation of air, that the tobacco may be perfectly dried. After it is perfectly dry, it should be taken down the first season, for if it gets in high order, the benefits of the previous bulking are lost. It should therefore be carefully watched, and whenever the leaf and the small part of the stem, about one-fourth its

length, will bend without breaking, to be immediately taken down, and placed away in a bulk on the sticks like shingling a house, until the planter is ready for his second bulking, and carefully covered with straw; and when there is favorable weather, such as will not change the order, the tobacco should be moved to a close house with a plank floor, and again bulked as above described; except that 3 or 4 courses may be substituted for 2, and heavily weighted.—The tobacco ought to remain in this second

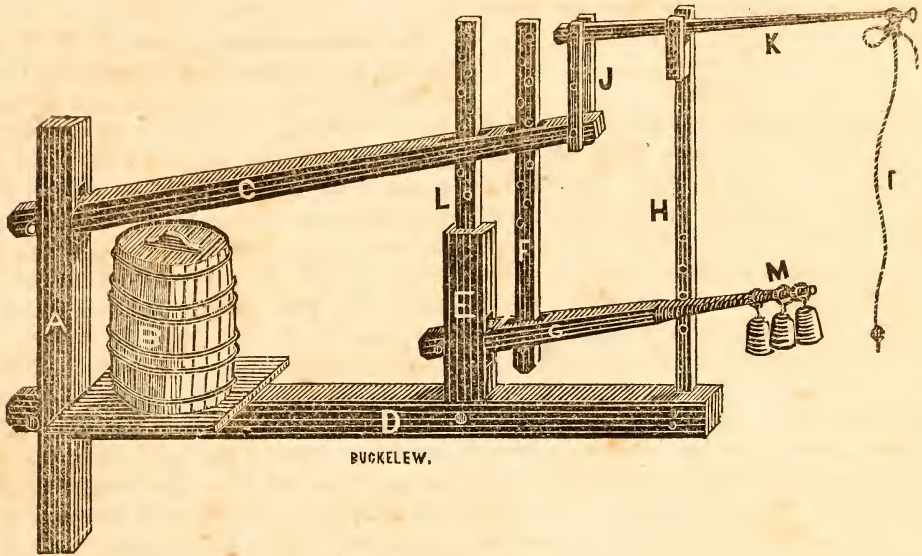
bulk three or four weeks, before it is prized. It is packed in the hogshead in the same manner as it is prized, except that only one bundle is straightened, pressed and drawn through the hands, and passed to the prizer at a time.

I send you a drawing of a tobacco prize, which I consider better than any I have seen, except the screw, which is too costly for general use.

RICH'D G. MORRISS.

Buckingham, Oct. 10th, 1841.

TOBACCO PRIZE.



- A. The stump part, $3\frac{1}{2}$ feet in the ground.
 B. The hogshead under prize.
 C. The beam, 16 feet long, 10 by 12 inches.
 D. The sill, 10 by 12 inches, morticed in the stump, and placed two inches below the earth, so that a bed of two inch plank for the hogshead to rest on will be even with the surface.
 E. A permanent sword morticed in the sill, with holes for prizing above, and a shoulder at L, to prevent the beam from being below a horizontal position.
 F. A movable sword morticed into lever G, so as to permit the lever to move up or down, and fastened by a pin of iron.
 G. A lever 12 feet long.
 M. Three fifty-sixes, to put on the lever after a good set is taken.
 H. A fork strongly planted in the ground.
 K. A pole with a rope.
 I, at one end, and a frame J, at the other, to raise the beam with.

the additional advantage of always being at hand in cases of emergency. The mode in which I am in the habit of employing it is this: A common shaving box may always be procured, from which a good lather may, in the course of a minute or two, be easily obtained. This lather is then gently laid over the burnt surface by means of a shaving brush, and repeated so soon as the first coat begins to be dry, or the pain returns. This practice ought to be repeated occasionally during the first day, or until such time as the pain is relieved. The benefit accruing to the patient is *immediate* and the result of the practice highly satisfactory; for in more superficial burns, if early applied, vesication is prevented, and in the course of a few days, desquamation of the cuticle follows, without leaving a raw surface. Of course, this as a remedial measure, is most applicable to superficial burns; but even in such cases as involve destruction of the more deep tissues, it is not used without advantage, in so far as the personal comfort of the patient is concerned. In such cases after the lapse of a few days, the crust formed by the soap is easily removed, so as to permit the employment of other remedies, if necessary. I am not prepared to say whether the benefit

COMMON SOAP AS A REMEDY FOR BURNS.

BY THOMAS WILLIAMSON, M. D., EDINBURGH.

In case of burns, common soap, besides its great value as a local application, commands

and instantaneous relief, following the application of the lather, are to be ascribed to the chemical composition, or simply to the fact of its affording some degree of protection from atmospheric agency or both.—*London Medical Gaz.*

APPLE TREES.

The Editor of the New England Farmer speaks of it as a well known fact, that any land from which a growth of forest trees has been lately removed, (in our vernacular, *new grounds*) is peculiarly favorable to the growth of the apple tree.

THE HOG.

We hope our friends will not be induced by the very low price of western pork, this winter, to abandon the raising of hogs. That three or four dollars a hundred is less than pork, beyond a certain amount, can be raised for, in this vicinity, we are ready to admit. We say, beyond a certain amount, because, there is a certain amount, and that no inconsiderable one, that may be raised upon refuse and offal, that would otherwise be lost. This does not cost *two* dollars a hundred.

But we must remember that the graziers of the West are complaining dreadfully of the low price of pork. It cannot remain at its present rate for another year, and there is no more certain way to secure its rising to an exorbitant height, than for the eastern people to divest themselves of their stock.

Moreover, we should be very glad to receive from a competent hand a new calculation of the cost of one hundred pounds of pork, raised in Eastern Virginia, at the present day, with an improved stock, and under an improved system of cultivation. If the day has not already come, it will soon arrive, when more care and better management will enable the East, we believe, to raise her pork cheaper than it can be driven to her even from the fertile forests of Ohio. It is, however, a matter entirely of calculation; and if the West, from natural advantages, can send us this article cheaper than we can raise it for ourselves, we should be madmen not to purchase it. Will some of our friends, competent to the task, afford us some information upon this subject? It is very evident that the people of this country are just beginning to appreciate the advantages of agriculture; the great forests of the West are soon to be settled; and if they can there produce corn for fifty cents a bushel, and send it to us at

that price, in cured bacon, it is evident that we will take of them as much as we can consume in that form, and turn the labor now engaged in that proportion of the production into a more profitable channel. But until these facts are ascertained, and the trade so extended as to be placed beyond the control of monopoly, we warn our friends to be careful how they place themselves in the power of the Cincinnati packers.

VISIT TO ENGLAND.

The celebrated stock importer, Mr. A. B. Allen, has just returned from an agricultural visit to England, with a new importation of Berkshires. Of these it seems he has introduced some extra varieties, calculated to throw our present stock completely in the shade. The Kenilworths, we believe, is the title in which this new family rejoices. They aspire to the weight of 1,300 pounds per hog, and are all white. Mr. Allen himself, however, seems to prefer some black Berkshires, that will not exceed the trifling weight of 800 pounds. It is absolutely necessary to get up something extra, every now and then, to gratify the morbid appetite of the lovers of the marvellous; and we sincerely hope that those gentlemen, who take so much pains to minister to so praiseworthy a passion, may find in its universality a fair field for speculation.

From the "Spirit of the Times" we learn, that Mr. Allen thinks our imported cattle equal, with a few exceptions, to the best in England. The Pennsylvania draught horse he considers superior to the English cart horse, and in point of bottom, he thinks the English surpassed by the American race horse.

In seeds, Mr. Allen found the British farmer quite as careful in selecting for sowing, as in choosing breeders for his stock. Their implements of husbandry he thinks more complex and intricate, without being more effective than our own.

With respect to the Berkshires, Mr. Allen declares that the real Simon pures are black, or a dark rich plum color, with a slight flecking of white: the white and light spotted he pronounces spurious breeds, and of far inferior quality and shape.

THE COW.

How much a certain supply of good milk conduces to the comfort of a family: how much

inconvenience is occasioned the good wife by the failure of the cow "to come up," or any other accident which deprives her of this necessary addition to her culinary stores! How often it happens that all the art of the milkmaid fails to extract the necessary supply from the dozen miserable looking cattle she is sent to drain! What a contrast does such a scene present to one we lately witnessed. We were invited to call and see a cow belonging to a poor man in this neighborhood, to whose family she was the chief means of support. We called about milking time, and found this beautiful animal well housed, well fed, well carried, and in the act of being well milked. The rich stream that was flowing from her generous bag would have more than sufficed to supply the wants of any one family, and was certainly greater in amount than that obtained from a whole plantation of cows that we have seen. Why will any body, who does not intend to sell milk or butter, keep more than two cows? One good one is generally sufficient. It is not necessary to urge the convenience and economy of keeping one good cow *well*, instead of a half dozen indifferent ones *badly*. We believe the community are well aware of the difference. But the truth is, the cattle in this region, generally, are so indifferent that it is a difficult matter to get one good cow; and with us importation is out of the question. What is left then but that our farmers should pursue the course pointed at by us on a former occasion? viz: by selecting the best of our native stock, and judicious crossing, build up a good stock of our own. The man who will early turn his attention to this matter will find his account in it. A native or acclimated stock, every thing else equal, is worth fifty per cent. more than a foreign one. An hundred cows per annum may be sold in the city of Richmond, alone, at one hundred dollars a piece, if they are of the quality that may well be produced in a few years by proper attention.

The Ayrshire we incline to believe the best cross for the native cattle of Eastern Virginia, and the importation of a good bull would, we think, amply remunerate the importer, provided, he would calculate to use his services in raising a stock of milch cows for this market. When the character of such stock came to be established, and the farmer knew where for one hundred dollars he could get a cow that, well fed and attended to, would supply his family with

milk and butter, we believe that the probable demand would be, for some time, greater than the supply. For this purpose the river farms below are admirably adapted; for they have this advantage, that whilst this stock can be transported above, not only with impunity, but with actual advantage, it is a well known fact that cattle cannot be brought down from the upper country, without the greatest risk.

That our friends may the better judge of those outward and visible signs, that mark a good milch cow, we subjoin the following article from the "Tennessee Agriculturist":

"If we ever rightly appreciate the cow, we will understand the secret of breeding cattle of one shape for milk, another for beef, and still a third for oxen. We will learn the milk cow must have light fore-quarters and brisket, thin neck, delicate head, soft, silky coat, wide hips, and thin thighs; while the best animal for beef, has a short thick head and neck, heavy quarters, round barrel and short legs; but the ox is longer in the limb, body, and indeed in all his proportions. When breeding domestic animals is reduced to a science, the different breeds for the milker, beef and ox, will be discussed with the greatest gravity, and the particular structure of each will be considered indispensable. Not only so, but the proper management of cattle in each state of their growth will be looked upon as a matter of more importance than the attention now given to the racer in each year of its growth. When we esteem the cow as we should, we will have her winter quarters, in point of comfort, next to the family dwelling; and we will learn that even currying is at least as serviceable to the cow as the horse. The proof that we do not put a proper estimate upon the cow, requires no other argument than the fact, that not one farmer perhaps in fifty has even a comfortable shelter or wholesome winter food for cattle. In Tennessee, we have enough of the improved breeds, and we trust a sufficiency of knowledge to *commence improving*. If we, as farmers, study our own comfort and interest, we will produce breeds of cattle more valuable than any yet in existence, and the prices heretofore given for the best short-horned Durham, will be no more than a 'starting bid' for them. There is no doubt in the world, a race of cows may be made which will give a bushel of good milk each per day, and could we imagine an adequate price for an animal of this description?"

FERMENTATION.

In fermentation, vegetable matter undergoes a chemical process that renders it much more ^e _{oor}

luble and nutritive. This has been demonstrated and admitted by the best chemists—the same effect is produced in a more expensive manure by the application of heat. The natural process may, therefore, be economically substituted for the artificial one, especially in the preparation of food for hogs.

The plain English of all which is, that we would advise you to let your hog feed stand until it sours.

SEA-SAND.

In Europe the happiest results have been experienced by the application of sea-sand to cold tenacious clays. Independently of the mechanical effect, produced by the disintegration of the particles of clay, all sands from sea and salt-river shores, are charged with large quantities of saline and oily matters, which exert a highly beneficial influence in the improvement and melioration of the soil. We mention this fact, because we are aware that on the margin of our seaboard and salt-river States, there are thousands and tens of thousands of acres of cold livery clay lands greatly exhausted from improper cultivation, and we are firmly of the opinion, that by draining these lands wherever they may require it, and admixing with them from fifty to one hundred loads of this sand to the acre, that a very solid improvement both in the texture and productive capacity of the soil will be thereby produced.—*American Farmer.*

MANURING.

The following article, from the South Carolina Temperance Advocate, is worthy of consideration. To save the labor of hauling out manure, and to prevent the loss of the volatile alkalis, are great desideratums, which are undoubtedly obtained by the plan recommended. The difficulty, we should suppose, would consist in the disadvantage of having cattle sometimes at inconvenient distances from the barn and the homestead; and at any rate, a due regard to sheltering would render the system impracticable for one portion of the year, at least.

The system of covering the manure as soon as made, we believe to be good, whenever practicable. It was highly recommended by a correspondent in a former number of the Planter.

“A friend of ours, who deservedly holds a high rank as a practical planter, in all its various details, gave us, in conversation, the plan he pursues in manuring his land. He owns about one hundred and fifty head of cattle, all of which
sc
corn driven home in the evening and penned.

His cow-pen is half an acre in size. He pens his cattle in one place, three nights, and then moves it forward, so as to cover half an acre more, and a plough follows immediately and turns under the manure, on the half just occupied, so that nothing is lost by evaporation. He continues this throughout the year, at the end of which he has about a hundred and twenty acres well manured, and the manure all well turned under, so that he has lost none.

“The trouble of moving such a small pen so often, he thinks is less than it would be to wagon out the same amount of manure, and scatter it; and then by his system, he saves a vast amount that would be lost by evaporation, if permitted to be long in a heap.

“But he gains, too, in another important particular; this secures for his cattle greater attention than is ordinarily bestowed on stock, and prevents his losing a large number.

“We asked if he did not haul straw and leaves to his pens? He remarked that his land was a light, porous soil, that would not bear this kind of manure; but that after his cattle had remained two nights in a pen, he hauled in a rich, clayey soil, from a large swamp near him, and scattered this over the pen, and the cattle were penned on this the third night, which was, of course, turned under too. He thus not only enriched his land, but produced a permanent change in the physical structure of the soil.

“We regret that we are not at liberty to use the gentleman's name, as authority for the advantages of this system, for he would be recognized by many of our readers as a most successful planter. And in connection with his success in planting, he remarked, ‘it is owing wholly to planting short to the hand, so as to afford me an opportunity to manure highly.’”

BREEDING.

We know no subject upon which more nonsense is written than on the principles of breeding. Experience and observation have undoubtedly discovered valuable facts in this important branch of science; but the mysterious nature of the subject has opened the door to the promulgation of vague, contradictory, and visionary ideas. To which class the following, taken from an exchange paper, properly belongs, we leave it to the more skilful to determine:

“If a man has a superior milch cow, and wishes to raise milking stock from her, the common plan is to save her heifer calves. But according to a principle of breeding, sustained by facts as well as theory, by far the better plan would be, to save a bull calf from this cow, and his stock when he is put to breeding will have the excellent quality of his dam, and be, like

her, superior milkers. For example, Cleopatra was an extraordinary milker, according to this principle her heifer calves may, or may not, make good milkers; but her bull calf Frederick, having her character and qualities bred in him, will communicate them to his stock; and his heifer calves will be, like his dam, superior milkers.

"This last principle suggests an important consideration in selecting a breeding bull, viz: that he be descended from a superior milch cow."

HOGS.

The following description of the points of a good hog is taken from that standard little work, the Farmers' Almanac:

"As this species of farm stock justly occupies much of the attention of the farmers of the West, at this time, we shall devote a chapter to a sketch descriptive of those breeds in which the most interest is felt.

"Let us see first what constitutes a good hog. The head—though it is certainly preferable that this should be short, handsome and sprightly, with thin, small, pointed and pendulous ears; yet good hogs may have a long and somewhat coarse head, with a heavy, flopped ear. The jaw should not be too heavy—the flesh of that part is coarse and of little value; and moreover, it denotes a too great aptitude to fatten, frequently to the serious injury of the breeding qualities. The neck short, and not too heavy, fitting well on to the shoulder; the shoulder not quite as high as the loin, thick and of good substance, rounding well out: the constitution is generally in proportion to the capaciousness of the breast and loin. The brisket coming well down, and the distance between the fore legs as great as possible. The back broad and straight, and rather slightly arched than otherwise, and particularly no sinking immediately behind the shoulder. The ribs well arched, forming a good barrel, and supporting the belly well. The loin, as before remarked, wide and full, with the ribs coming well back. The rump rounding off evenly, the tail well set on, tapering and thinly haired, except the tuft, which may be heavy; in some breeds the tail is curled like a corkscrew. The ham must be of good size, round and plump, and swelling out so as to come in a line with the shoulder: such a formed ham will weigh well to its size. The hips wide spread, and the twist coming well down; the flank deep and full; the belly roomy, but not coming too near the ground. The legs straight and fine in the bone; the muscles heavy, particularly in the thigh and arm; the hock pointed; the pastern joints firm and strong, not resting the dew-claws on the ground, so that the animal has a bold and erect footing; a thick, fleshy leg will not carry a heavy hog to a distant market. The

skin thick, but tender and gelatinous, and easily masticated, even in the shape of roasted crackling; soft, and handling well, and free from eruption. The hair smooth and soft, no bristle on the neck, shoulder or back. It has been observed, even by some of the oldest writers that 'smooth, soft haired hogs are most suitable for warm climates.'

"Though the above described form and qualities are those that in our view constitute the best hog, yet, like all other kinds of farm stock, they should in a measure be adapted to the climate, situation with reference to market, nature of the keep, and the circumstances and management of the farm."

CLEANING PAINT.

Housewives should be careful not to wash paints, especially *green*, in *strong* soap suds: the lie has the same effect on paint that it has on grease. When it does not destroy the paint, it may affect the lustre.—*Exchange paper.*

We are indebted to the lively imagination of Mr. John B. Miller for the following description of the effects to flow from the late important discovery of Dr. Boucherie's method of preserving and coloring wood, heretofore noticed in this paper:

"The discovery, by Doctor Boucherie, of a process by which liquids may be infused into living timber, is an invention, the benefits of which almost surpass computation. By means of a most simple application of a force contained within the tree itself, the wood may be rendered much more durable, its elasticity preserved, the variations in volume on account of exposure to different degrees of moisture avoided, its combustibility destroyed, its strength and solidity increased, and every shade of color and variety of odor cheaply, easily and expeditiously imparted. The benefits to be derived from this simple discovery will be as numerous as the purposes to which wood is applied are various and useful. Dr. Boucherie has, by this discovery, become one of the great benefactors of the human race. For there are none so high as not to be benefitted by it, and none so poor as not to participate in its advantages. Whoever lives uses wood, and whoever uses wood will be benefitted by this discovery. If the invention is generally applied, and it is folly to suppose that it will not be, fire insurance companies may close their offices, and the fire departments break up and disband. Masons and painters may for the most part turn carpenters, and a light and simple *boucheried* wooden edifice will surpass in beauty the splendor of the heavy and expensive marble palaces of the present day. The poor

man's house will need few repairs, and the carman's truck will last his lifetime. Ships will require no sheathing, and roofs no tiling. The mouse and the rat may bid adieu to their old hunting grounds, and with the moth and the bed-bug retire in disgust from the embittered pantry shelf and odoriferous bedpost, leave these regions of enlightened civilization, and take up their line of march towards the confines of ignorance and barbarism. The luxurious may roll in spiced carriages, and the lady's boudoir be redolent with musked *ébénisterie*. The fact that the most simple discovery may produce the most stupendous results, has, perhaps, never been more strikingly illustrated. The principle is not novel: the originality of Dr. Boucherie's discovery consists merely in the full application of an experiment, which has long since been usefully applied to rid trees of the grub or canker-worm. An infested tree is cleared by perforating it, and filling the bore with sulphur. By this means the sap becomes impregnated with sulphur, and the worm, in consequence, leaves the tree. This fact is adduced, not with any view to detract from the merit of the discovery of Dr. Boucherie, but to suggest the remark, that it is much to be regretted that some one of our own shrewd and intelligent countrymen had not made this discovery instead of the learned Doctor, whose high fame will most deservedly descend to future generations as the discoverer of this astonishing mode of improving and preserving timber. The following account of the manner of operating, and of the substance used, is translated from '*Le Journal Scientifique de l'Académie des Sciences*,' which contained the report of a committee appointed by the academy to examine the discovery of Dr. Boucherie. After highly complimenting the Doctor for his science and ingenuity, the report proceeds to unfold his plan as follows:

"In order to infuse preservative or other substances into living timber, recourse is had to no other force than the capillary attraction, by which the tree takes up its sap. Let the tree be felled when the sap is in full flow, and plunged in the liquor that it is desired it should imbibe, and in a few days the liquid will ascend even into the leaves at the farthest extremities, every fibre, except the heart of the tree, becoming perfectly saturated. It is not, however, necessary that the tree should be cut down, for it is sufficient to bore it at the foot, or merely to saw it rather more than half through, and then apply the liquid to the incision, and a rapid and complete absorption will ensue. If it is desired to increase the durability and hardness of the timber, and thus prevent its decay, the pyrolignite of raw iron should be infused. This substance is exceedingly well adapted to the purpose, inasmuch as impure pyroligneous acid is produced in all our forests by the fabrication of charcoal, and

this is easily changed into a pyrolignite of iron, by bringing it in contact with old iron. Moreover, this preparation contains a quantity of creosote, which substance, independently of the salts of iron, has itself the property of hardening the wood, preventing ordinary decay, and injury from insects. To preserve the timber elastic, and destroy its combustibility, Dr. Boucherie recommends the chloride of calcium, or a still cheaper substance, the water from a salt marsh. Wood prepared with these saline solutions retains its flexibility after several years of exposure to the atmosphere, and in their slips may, without breaking, be twisted in spirals, and again untwisted. Exposed to the atmosphere, it neither warps nor splits, no matter how dry soever it may become; finally, from the difficulty with which it burns, it is incapable of spreading fire. Wood is, by this process, colored in such different shades, and with the tints so beautifully mingled, that it cannot but cause a vast improvement in all cabinet ware. The pyrolignite of iron gives a brown tint, which contrasts prettily with the natural color of such parts of the wood as are too compact for the pyrolignite to penetrate. If, after the absorption of the pyrolignite of iron, some tanning liquor be infused, it produces an ink in the body of the wood, and can thus be colored blue, black or grey. Let an absorption of the pyrolignite of iron be followed by an infusion of the prussiate of potassa, and Prussian blue is formed, and by introducing successively the acetate of lead, and the chromate of potassa, chromate of lead (chrome yellow) is produced. If in the same tree are infused the pyrolignite of iron, the acetate of lead, the prussiate and chromate of potassa, they form different shades of blue, green, yellow and brown, and produce the most varied effects. In the same manner timber may be impregnated with odoriferous liquids, and every variety of odor imparted to the wood."—*Northern Light*.

Utica, October, 1841.

UNDER DRAINING.

We are glad to find our own views on this subject enforced by the following, from a distinguished correspondent of the Farmers' Cabinet:

"*Mr. Editor*,—This is the season for making under drains; the leisure of autumn and the open weather of winter cannot be so well employed as in this most necessary and all-important operation: by this means, too, labor is found for our helps at a time when, otherwise, they would be suffering privations from the want of employment; and when the business is judiciously conducted, it is sure to pay a per centage upon the cost, far greater than any other that can be devised, as that land which has been reclaimed by draining will oftentimes require no

manuring for an age; the herbage, too, being of a peculiarly different species from that hitherto produced, and far more nutritious. It must be observed, however, that drains cut at this season of the year should be filled and finished immediately, lest the frost might shake the sides of the newly-cut earth, and render the labor in a measure abortive, by partially filling them, before the stones, or other articles used, are placed.

"On land that has been drained, the system of subsoil ploughing can be adopted with tenfold advantage, which is an object of the highest importance, for there is no doubt, the use of the subsoil plough will ere long be in very general requisition on almost all soils, having been found as valuable on light lands with retentive bottoms, as upon those of a more compact and stiffer surface—rendering, as has been observed, all soils drier in wet weather, and more moist during a season of drought. On this all-important subject, I find some interesting remarks in the Southern Planter, a new agricultural periodical, published at Richmond, Virginia, which stands high in public estimation, and deserves the liberal support of the country through which it circulates."

"Here he quotes the article from page 129 of the Planter, and then adds:

"There are many articles used in the filling of under drains. On the old and low meadows of England, it is usual to cut drains eighteen inches deep and twelve inches wide, and in the middle of the bottom of these, to sink a foot deeper, only three inches wide; then, to take the turf that had been cast off at the first opening and turn it, sod downward, on the shoulders of the drain, and fill the mould upon them; and these drains have stood in perfect order for an age. Then again, on other meadows it is the custom to sink a deep and narrow drain, and place in it the branches of beech, osier, or other aquatic timber, covering them with straw, &c. and filling in the earth, and these also stand and perform well. But when stones of proper size can be obtained, a preference is due to them over every other material, for if the drains are carried so as to have a slight declination only, and carefully filled, they will run for any length of time: where stones are not to be had, however, tiles are used very extensively; and two pine boards nailed together and placed in the bottom of the drain, so as to span it, the aris edge upwards, has been found a cheap and very excellent substitute for them. But, upon the principle of the working of the subsoil plough, if land be cut into wedge-shaped deep drains, and these be filled again with the matter that has been thrown out, after it has had time to dry, they will be found to keep open and run, perhaps for any

length of time, even for an age. In any view, therefore, draining in some form or other ought to be practiced very extensively on land requiring the operation: it is the *ne plus ultra* of good husbandry."

We had imagined our suggestion about the plank drain to be new, but are happy to find that its value has been tested by English experience. There are several circumstances that render it much more economical and suitable here than there; and we have no doubt that it may be introduced extensively, to great advantage.

PREPARATION OF FOOD FOR HOGS.

Grain is worth far more, as food for animals, ground than unground. Cooking food, also adds greatly to its value. Some have estimated cooked meal at fifty per cent. more in value than uncooked. There can be no doubt that grinding and cooking grain will make an improvement, far excelling in value the cost of these operations. They will probably add nearly one hundred per cent. to the value of the food.

It is well to have a mixture of food for hogs; it is less cloying, and induces more thrift. Roots of various kinds, with apples and meal, make an excellent and cheap food. Pumpkins may be added, or pumpkins, meal and apples, may be used, if no roots are at hand; sweet pumpkins and sour apples, with meal, form a very palatable and nourishing dish.

All these kinds of food, excepting the meal, and that may be used sparingly, are very cheap, and yield a large amount to the acre. Apples are produced with little labor, after the trees once attain a good size. They are probably the cheapest food that can be produced in New England or the Middle States. And even in the West, where grain is raised with little expense, apples may be produced with little expense also.—*Farmers' Journal*.

CABBAGES.

A correspondent in the Farmers' Cabinet commends very highly cabbages as food for cows and hogs. They should be boiled, he says, with corn cob meal, when they will be found superior to any other food. They are much used for milch cows about London. He proposes the following plan for preserving this vegetable through the winter:

"Let the cabbages be cut in fine and dry weather, and after stripping off a few of their outer leaves, lay them singly upon straw—which must be clean and dry—on the floor of a barn or outhouse, well secured from the rain; upon

these lay more straw, and then a line of cabbages, and so continue to any height you may choose. The mode of burying them head downward in the earth, appears, to say the least, a troublesome and dirty business, by which their outer leaves become corrupted, and oftentimes a portion of the cabbages also."

LARD.

As the season is approaching, we copy Mr. Lewis's mode of trying lard for the benefit of our pork curing friends. Mr. Lewis is known as one of the most extensive and successful pork curers in Kentucky; raised in Virginia, he has sustained in his adopted state the well established fame of the Old Dominion.

PREPARATION OF LARD.

Messrs. Gaylord & Tucker.—The following is our mode of trying up lard, of which we make three qualities; that from the intestines, that from the leaf-fat, and that from the upper part of the back-bones. The latter is the *superfine*. So soon as the intestines are taken from the hogs, while yet warm, the fat is rid off and thrown into cold water, where it remains to soak some hours; it is then washed out and put into other fresh water, in which it remains until next morning. It is then cut up into pieces not more than two or three inches long rinsed again and immediately put on in iron boilers *thoroughly cleansed*. The fire is then applied, which must be free from smoke during the whole process of boiling, which should be continued for at least twelve hours. It is very frequently stirred during the boiling, and the bottom of the boiler scraped hard with the sharp edge of the iron ladle, to keep the cracklings from adhering and burning, which they are apt to do towards the end of the process, if the fire is strong and the boiling rapid. When the cracklings *begin to burn brown*, and the lard becomes clear as water and scarcely any evaporation is visible, the fire should be slackened. The bubbles rising to the top will be as clear as cut glass. Continue the *simmering gently* until the cracklings are quite brown. They never become *crisped*; but although brown and entirely done, will be soft and flabby. The clearness of the lard, the brown color of the cracklings, the crystal purity of the bubbles, and the nut-like scent arising, indicate the end of the boiling. Take the boilers off the fire, or extinguish the fire, and when the lard is so cool that you can bear its heat on your finger dipped into it without pain, strain it off into clean tight vessels. Exclude the air; and you will have a nice article even from *gut fat*.

The leaf and chine fat are soaked in water at least forty-eight hours, after being thoroughly

washed, and cut up into bits not more than cubic inches in size. The frequent agitation and stirring of these in the cold water, makes the lard much better. When put into the boilers the water should be carefully drained off, so that as little water as possible should go into the boilers with the fat. Apply the fire, and in eight hours these two kinds, which should be kept separate, will be done. The lard clear as water, the cracklings nut brown and *crisp*, and giving *as they simmer* the sound of rustling dry leaves, emitting the scent of nicely fried pork, and giving off scarcely any perceptible evaporation. Stir very often during the boiling and let no cracklings stick to the bottom of the boiler. For the last hour the *boiling* should be very gentle, *rather brisk simmering* than boiling, to prevent burning, which must be most carefully avoided. Cool and strain off, and exclude air as directed for gut fat, and you will have a snowy white, firm, fragrant article, that will keep for years without the slightest alteration. Never put another parcel into the boilers during the process, and when one parcel is done, have the boilers most carefully scoured, and so clean that they will not soil a cambric handkerchief. Much depends on thorough washing, soaking, and agitation in clean pure water before boiling; much on careful boiling and stirring, but most of all on the perfect purity of the boiler. The slightest rancidity, burnt grease or oxydation will impart to the whole parcel of lard boiled in it, offensive or injurious scent, taste or color. Although I have stated the *usual time of boiling*, you must not be governed by the *time*, but by the *indications* mentioned as produced by boiling. These indications must appear, no matter what the time has been, before the boiling or trying up is complete. Leaf and chine lard thus prepared are superior even to the best butter for making pastry, biscuit, all kinds of hard cakes and jumbles. Lard, like butter, should be kept in cool, dry apartments, subjected to as little atmospheric change as possible. In this country we usually keep lard in kegs or firkins of the linden or lime (*tilia*) tree, containing from 55 to 60 pounds. I however prefer well glazed stone jars or tin buckets, because they are more impervious to the air.

Very truly gentlemen,

Your obedient servant,

JOHN LEWIS.

Llangollen, (Ky.) Aug. 27, 1841.

From a very elaborate description of the farm of Mr. Elias Phinney, Esq. of Massachusetts, given by the editor of the *Farmers' Visitor*, we make the following extracts. Mr. Phinney's name is familiar to the reader of agricultural papers, and we have no doubt he is a man of

great judgment and industry. When we see such a man so successfully contending against the natural obstacles of a barren soil and frigid climate, we cannot help considering what results the same energy and vigor would effect in our own climate, where nature is ever ready to assist, instead of thwart, the labors of the husbandman:

The farm of Mr. Phinney consists of about one hundred and sixty acres, upon that rough ridge of hills dividing the waters of the tributary streams which run into Charles river on the one hand and Merrimack river on the other—a much harder faced soil than is usually found upon the ridges farther in the interior. The elevations at this point are not only full of rocks, great and small, terminating the sharp points of many hills in mere ledges, but a great portion of the soil is scarcely less hard than the rock itself. These rough ridges, after their first clearing, were the favorite haunts of the barberry bush, the cedar, the poplar and the birch, indicating not a very strong soil in its crude state. Yet it is not uncommon, when the masses of stone have been dug from this ground, to find upon it, by the artificial aids of manure and good cultivation, such crops as would do no discredit to the finest and most fertile soil in the country. Such is not the condition of Mr. Phinney's farm alone upon this ground—there are farms all about him at their sides and in the valleys between these elevated ridges, whose productions are creditable to the perseverance and industry of his neighbors.

We have of late remarked that generally in the vicinity of land of one prevailing character there is at no very great distance land of an opposite character, in the intermixture of which an extremely sterile may be converted into a productive soil. In the midst of arid plains we now and then find swamps in which are beds of black vegetable mould, clay or marl; and in some instances it has been discovered that the exchange of silex for clay or mould, and clay for sand or gravel, have wrought wonders in cultivation. The rough ridges of Lexington, in the midst of which Mr. Phinney's farm is situated, are interspersed with bog or peat meadows, some of which have a vegetable mould of great depth. The most of these meadows were formerly ponds—some of them have been recently drained of their former fixed surface of water. Others had so much standing water as to preclude the growth of other than coarse inferior hay of the poorest quality. Others, after the first wood had been cut off settling down into more solidity, were dug up for peat. One of these on Mr. Phinney's farm, from which thousands of cords of fuel nearly as valuable as the best bituminous coal had been taken, has been changed into the most productive hay ground upon his premises.

In the first place a ditch has been made at the edge of the whole semi-circle of the meadow on this side between the soft ground of the meadow and the hard pan of the rising hill just deep enough to cut off the cold springs which formerly fed the meadow. This outside ditch filled at the bottom with rocks large and small leaving the water room to percolate between them, these are covered first with hassocks or tough-sward sods, and afterwards with the soil to a depth so as not to be reached by the plough. Transverse ditches covered in like manner connect the outside with other open ditches at convenient distances on the level of the lowest meadow, and through a main ditch the whole water is carried off to the lowest point of the lot. But this has only been a part of the under-ground work, which has made of this meadow, out of which when mowed at the driest season of the year, Mr. P. said he had when a boy while poling the bay off often sunk to the armpits, a field which will produce the largest crop of hay for the whole life of man. In the most sunken, cold part of the meadow, Mr. Phinney has caused ditches to be made of some eight or ten feet in width extending towards the centre of the meadow from the ditch at the edge. Into these ditches in the winter the stones from the weight of tons to the merest pebble are drawn, while the ground is frozen: filled with the stones to the proper height, the coal black soil of the meadow is dug out, so as to form a new ditch, covering the rocks to the depth of twenty inches and more, so that the plough cannot reach them, and raising the surface several inches above its former position. This process has been repeated, filling one ditch by the digging of another until the good part of an acre of ground has been gone over with a substratum of stones covered by a rich soil which produces year after year the largest crops of hay. The effect of the deposition of rock is the proper draining of the whole surface of the meadow within, so that the land is proof against both wet and drought, and the ground may be readily tilled with the plough and hoe, as often as it may be deemed expedient to break up the sward. The low meadow land, drained and prepared in this way, is said to be excellent for raising early potatoes for the market: this crop on that ground fears no drought; the potato vines are free from rust. On this same meadow we saw at a distance two years ago, when we made a hasty visit to this place, in the absence of Mr. Phinney, a crop of corn growing of a great size, and then supposed the meadow was like the common intervale upon our river where Indian corn is always raised. In 1840, the corn field was put down to a crop of small grain; and this year for the first crop three tons to the acre of the best English hay had been taken from the ground, and a luxuriant second crop was now growing. Two or more acres lower down the same meadow and upon the oth-

er side of the highway, more recently treated in the same manner, last year planted with potatoes, were this year sown down to herdsgrass in April: the grass sprang at once so that a great crop of this first rate hay was taken off in July, and another crop was nearly ready for the scythe.

The meadow made thus valuable—and Mr. P. thinks it to yield him an annual income equal to 6 per cent. upon five hundred dollars to the acre—was prepared at an expense far less than its real value. The bodies of stone upon the ground in the vicinity must be taken somewhere: left at any point above ground, they are much in the way. Upon this farm Mr. P. before he adopted this method had disposed of many thousand tons in the construction of several hundred rods of double wall for fences, until the entire farm was partitioned into convenient enclosures. But the stones were much too numerous, and many of them were too small to be used any where to advantage above ground. Picked and piled up in the summer, a portion of the winter business of the farm was to team these rocks to their useful destination in the underground meadow ditches. Upon this meadow when the fresh herdsgrass runs out after a few years, the ground is at once prepared for a new growth by turning over the sward in September, spreading some ten or a dozen loads of compost manure to the acre, and sowing new clover and herdsgrass.

Mr. Phinney is of opinion that the use of a sub-soil plough, not the Deanston plough imported from England, but one invented by himself, will increase the crop of carrots, beets and potatoes nearly one-half. His sub-soil plough is a large and heavy wooden instrument, in the shape of the Cultivator: it has three large iron bolts at the centre, running all the distance, say of eighteen inches, one behind the other: these bolts, an inch and a half or more in diameter, and 8 or 10 inches clear below the wood, are stump footed at the bottom, pointed so as to perforate the ground. This stump-footed half harrow, half cultivator, drawn by a team of three heavy yokes of oxen, follows the plough in the same furrow, and roots into the sub-soil, some two, three, or more inches, according to the hardness or softness of the ground upon which the prongs operate.

The simple instrument of Mr. Phinney, the plough with three teeth following directly after each other, it does seem to us, may be made a most effective instrument, passing along in an open furrow, turned out by a preceding team with the common plough, in moving the hard pan, and thus laying the foundation for a deeper, richer soil when the stirred sub-soil shall become meliorated by due exposure to the atmosphere.

Sub-soil ploughing is but of recent practice, even in England, whence it was introduced into this country. Connected with under-draining,

where the wet which resting long near the surface producing heaviness, and retarding and preventing the progress of vegetation, is carried off unseen, and the upper soil is left dry and light, sub-soil ploughing adds wonderfully to the capacity of the land for production. This matter is well understood and practised in Great Britain—it is adding hundreds of thousands to the profits of farming in that country. Mr. Phinney, with the philosophy which he has applied to other things, seems at once to have stepped into the true process of sub-soil ploughing, of which we had the evidence before us in the case of his carrot beet, and potato cultivation.

ADVANTAGES OF IRRIGATION.

By continued improvements of this kind Mr. Phinney has been able to increase his crop of hay four-fold: he gets a great quantity on a small space of ground. On the kind of land natural to the production of hay, his practice has been for several years to invert the sward to the depth of six or eight inches, with the Prouty & Mears plough adjusting the edges so as to leave no crevice—pass over the ground in the first instance with a heavy roller—spread on ten or a dozen loads of compost manure—harrow the ground lengthwise of the furrows—sow with herdsgrass and clover—harrow or brush it in, and roll down close a second time. In this way the field is left in the smoothest condition: the unmoved sward at the bottom has a fine effect upon the subsequent annual crops, making the grass hold on much longer than if it had been stocked down in the usual way. Mr. P. had one field put down in this way which without other preparation had continued to produce for five years in succession full two tons of hay to the acre.

The method of stocking down to grass first after a crop of corn or potatoes, is found to be the best in the drained grounds. Mr. Phinney sowed herds grass in April upon about two acres, and instead of the long process when the seed is sown with grain, of obtaining a crop of herdsgrass in two years, he was able to cut a large crop of hay in less than three months from the time of sowing.

The unevenness of Mr. Phinney's farm enables him much to increase his crop of hay by irrigation. The effect of pure water on grass ground applied at the proper time and in the proper manner, is surprising to those who would suppose that the pure element intrinsically has no fertilizing quality. Mr. P. has ascertained that land will produce large crops of hay year after year, with no other application than flowage in the spring, when fresh water makes brooks that become dry a greater part of the summer. He has contrived to turn a stream of water issuing from a pond that is never dry, which soured or killed the grass when all flowing in its natural confined channel, over an extent of several acres,

by running channels on the brow of the hill so as to overflow or leak out on the lower side: wherever this water touches and flows off, the crop of hay is much increased.

Irrigation in this country seems to be but little understood and practised. There are many places where the water can be plashed over the fields where the proprietors have never thought of the great advantages resulting, but where a very trifling expense, judiciously applied would much increase the crops of hay and grass.

As the only practicable mode of bringing up the production of his farm—it being too distant and too expensive to purchase and bring manure from the stables of the city—he commenced rearing and keeping swine. For several years his common average number was one hundred and fifty. Every one who keeps swine will realize how great is the quantity of food consumed by a score or two of this voracious animal; that few of the largest vegetable and grain farms will produce enough to keep in growth so great a number. To keep up the number, Mr. P. resorted to the Boston market, and frequently purchased damaged grain and rice, the refuse ship bread from returned voyages, and other material to be found in the city: boxes of damaged raisins, with other injured imported fruits, were sometimes converted into thanksgiving food for the grunners. All the time the brutes were made workers for the benefit of the farm. When we contrast the indolence of our own half a dozen swine, which if hungry would much rather resort to some mischief, as the devouring of young chickens, or lie stupidly down when fed with a full belly, than perform any useful labor,—with the industry of Mr. Phinney's seventy-five or hundred swine; we must admit that his hogs have much the better bringing up. His swamps and low grounds have furnished abundant materials for the hog pen: loads of black mud or muck are constantly lying on the outside to be thrown in and worked over by the nose of the hog as fast as it may be profitably added to the work already done. After it is thus worked, it is generally carried to the barn-yard to be trodden upon and mixed with the droppings of the cattle, or the daily collections in the winter of the stables, where the whole is accumulated in a mass fit to be applied in the spring of the year to every growing crop. The well arranged barns on these premises are so constructed that the urine of the cattle passes underneath into cellars where every thing is saved. The hogs are generally kept in small pens, with two apartments, one for the mud and the other as a place to rest upon a dry floor—they work, for the most part, either singly or in pairs; and it seems to be a part of their daily business to root and champ the fresh black mud that is thrown to them. And it is as much the business of the workmen to supply

and take out of the pens, as it is periodically to milk the cows, or to sow and hoe for the crops.

WORKING HOGS.

Mr. Phinney's present number of working hogs is about seventy-five: he says he cannot afford to keep a number beyond this while Indian corn costs a dollar a bushel, and pork sells for only six cents. When pork sold for eight, ten, and twelve cents the pound, he did well, even when he had to purchase a portion of food for the keeping, to keep as high as the number of one hundred and fifty. He has accumulated by their means as many as five hundred full loads of the best of manure in a year; and he has made sales of pork to the amount of between two and three thousand dollars in a season.

CURE FOR THE MANGE AND QUINSY IN HOGS.

Messrs. Editors,—During my perigrinations through "Old Robertson," a few days since, in conversation with one of its most respectable and intelligent citizens, (and one of your subscribers, too,) I was informed of two sovereign remedies for two common diseases to which swine are liable, to wit: "Mange" and "Quinsy." If you have not already given to your many readers the same or other better remedies for the same diseases, you might do well to give them this, which I am assured has never failed, in many trials, to produce a perfect cure in a short time. The remedy for that most loathsome disease, mange, is simply this—take the common poke root, stalk and salad, and boil a quantity of it until the liquid becomes quite strong, then season with salt, meal, pot liquor, &c. until it is made palatable to the hog, and he will partake of it and the salad most bountifully. It has been observed, too, that if the hog has ticks on him, they all drop off after the first or second feed; but whether from getting the liquor on him, whilst feeding, or taking it inwardly, is not known. For the quinsy, give the hogs one or two *tea parties*—tea made strong of penny-royal, and seasoned, as the poke juice, with salt, meal, and pot liquor.

Very respectfully, one of your subscribers,
S.

We have long known that poke root was a valuable medicine for many diseases incident to domestic animals. We believe a strong tea of poke root, given frequently, will cure the malignant disease denominated *farcy*. It acts upon the skin and the absorbents, and "cleanses the blood."—*Agriculturist*.

For the Southern Planter.

Hanover Court House.

Mr. Editor,—That portion of our domestic

economy which we in Virginia neglect the most, is what I shall designate by the rather homely phrase, the "truck patch." It is true that we sometimes plant a few pumpkins in the corn-field, which, however, generally turn out but poorly, from future inattention, and sometimes you may see a few half starved, unthrifty turnips or beets, which have had the fortune, good or bad, I an doubtful which, to escape the clutches of the marauding pigs; but how rarely, how very rarely is it, that we see a large and well enclosed lot of fine and thrifty vegetables for the winter consumption of our cattle—unfortunate and neglected that they are! I have often thought with sorrow and with shame of the marked superiority which the inhabitants of New England have over us in this respect.—Why should it be so? Is it any excuse for us, that because we have more cattle, they should not fare so well as theirs? By no means; if we have more to feed we are able by care and attention to provide more food for their maintenance and comfort. We have more land—and it is susceptible of as high improvement. We have more labor, and it can be as profitably employed on our farms. But we have not the *habit* (for if we would but exert it we have the faculty) of attending to the minutiae of a farm. We aim at a large, a *bragging* crop of corn and wheat, whilst we neglect, what I think the essentials of good management, the comfortable food and shelters for our cattle, the sheds for our implements of husbandry, our fences, and the other thousand and one petty details, the neglect of which is absolutely incompatible with good farming.

But to return to the "truck patch." The size of it must of course bear relation to the quantity of stock which you have to provide for; but the larger and richer it is, the more corn one will save in the fattening of his hogs; the more comforts he will bestow on his horned cattle, and, what is to many of more importance, on *himself*; for there are many amongst us, who, though they don't care a straw how their poor starving, freezing cattle look, may be actuated by the desire of having good butter and milk, to pay this little attention to their comfort. I should recommend pumpkins to be cultivated for use in the early part of the winter. The roots, which I would plant, are the mangel wurtzel, the carrot, the parsnip, and the ruta-baga. These, as they will keep much longer than the pumpkins, I should leave untouched, until all of the latter were consumed. The common turnip I do not look upon as near so valuable as any of those roots which I have enumerated, being much more watery, and being possessed of much less nutritious matter. The Jerusalem artichoke has some merit on account of its great product, and the little labor which its cultivation requires; but that is also too succulent and

too little nutritious to allow much value to be attached to it. The four kinds of roots that I have mentioned above I consider far better than any others that we can plant. In addition to the great quantity of nutriment which it contains, the ruta-baga has the recommendation of being sown much later than any of the others, which is desirable, because, if any of those which are first sown should not come up, the ruta-baga can be sown where they have failed. The best mode of feeding away these vegetables is to chop them up, boil and give them to the cattle while warm.

I feel confident, Mr. Editor, that any one who will once try this mode of providing for his cattle, during the winter, will find himself so well repaid for his attention and labor, that he will never abandon it. With renewed wishes for the prosperity of the Southern Planter,

I am, your obedient servant, X.
December, 1841.

For the Southern Planter.

Caroline County, Nov.'16, 1841.

Dear Sir,—In your Southern Planter of this month, page 184, I find a request is made for any person to vouch, that layers of elder twigs will prevent rats from destroying oats in the sheaf. I saw a publication some two or three years ago, (I do not recollect where) recommending the elder as a preventive against the ravages of rats in oats; having suffered so much loss by them, I was induced to try the remedy proposed; I was at much trouble to procure the elder, and took great pains to give the experiment a fair trial; but to my regret, I found it a total failure; the rats trespassed as usual, and my horses and cattle never ate them with their usual eagerness. I am under the impression the elder imparted a taste or smell that was offensive to them.

I am much pleased with your periodical: although I can't be called a farmer, I feel deeply interested in the advancement of that branch of business, and hope, ere long, the farmers in this county will form societies, as some of the adjoining counties have done, for the advancement of agriculture, thereby benefitting themselves, and encouraging your laudable efforts manifested in your monthly communications.

Respectfully, yours,

WM. G. MAURY.

The refutation of error, though more invidious, is not less useful than the establishment of truth. We return our sincere thanks to Mr. Maury for the manly promptitude with which he has advanced to save others from an useless and injurious experiment. We believe that thousands of the recommendations of new practi-

ces, that are going the rounds of our agricultural papers, belong to the same category with the elder leaves. We take pains in making our selections to avoid such as seem to want the stamp of truth; for we believe it is better to fail to publish two good things, than to propagate one bad one.

MANURING.

The system of spreading refuse vegetable matter over the surface of land, instead of hauling it into the farm pen to be trampled by cattle, is finding much favor in public estimation. Among its advocates, we reckon not the least able, Mr. Drummond, the author of the following communication. We invite particular attention to his views; they in a great degree correspond with, and confirm, those of "W.W." in a former No. of the Planter.

For the Southern Planter.

MANURING THE YEAR BEFORE TILLAGE.

I have for many years been in the custom of spreading a portion of my manures on the surface of some field which was to be cultivated the year following, and have never failed to be gratified at the result. When I speak of manuring the year previous to tillage, I mean a year before the usual time; i. e. spreading now, and during the winter and next spring, on land which is to be cultivated in the year 1843.

I have already spread on my field to be cultivated in corn in 1843, some refuse straw and chaff, compost, saw-dust and mould, scrapings about negroes' houses, rotten leaves, and pulverized charcoal and cinders from a blacksmith's shop; and shall through the winter continue to spread the like. Refuse hay, weeds, chips, shavings, saw-dust, and tobacco trash are all very good, and should never be moved to the farm pen, that we may have the trouble of moving them out again. The hog pens, however, should be liberally littered, for which purpose leaves are best; but if these cannot be had abundantly, then other trashy matter should be used.

Next spring I intend all the long manure of the horse, cattle and hay yards, to go on the cornfield intended for 1843. Of course, the decomposed and pulverized manures, will go on gardens and meadows; and of course, my cornfield of 1842, gets no manure. So soon as the weather is sufficiently warm to cause evaporation, (which is usually about the first of April) I intend to sow plaster on all the manures then spread, and follow with the same immediately after every future spreading. The plaster is expected to intercept and retain the ammoniac, as it issues from the manure, and which would

otherwise become aerial, and future rains to carry it into the earth; and this, together with the protective coat, is expected to grow a splendid crop of grass; and altogether, to make the land permanently rich.

My hilly lands are kept mostly in small grain and pasturage, and my bottoms, except for meadows, are kept in corn, small grain, and used without grazing, except partially in the fall and beginning of winter; which system I am satisfied with, and shall continue it unless convinced of my error. The ground allotted to corn will, as above stated, be manured the year before tillage, fallowed in fall or winter, raked and planted in the spring, the crop tilled by the cultivator, so as not to lift the grass seeds to the surface, fallowed again the next fall or spring for a crop of small grain, when the grain and grass will all start together. So soon as the small grain is harvested, the field is again ready for the manure and plaster, and the third year is rest for the land, and jubilee for the sheep and calves, or cows and hogs if you please, from August till the fallow is finished.

My ground intended for corn in 1843, is now well taken in white and red clover, and in spring is expected to make a handsome show of spear grasses; the seeds of all which were either previously on the land or carried with the manure which was spread for the corn crop. For this purpose, the clovers are far preferable to all others. Before dismissing this part of my subject, I would remark, that it might be well to be cautious in pasturing stock sheep on highly dunged land, as I am inclined to think this is at least one of the generative principles of rot.

Let us now compare the customary mode of moving and applying manure with my proposition. As to manuring in the hill, or on the planted and growing crop, it is out of the question. Broadcast and before the fallow for planting, is the only method for a substantial SOUTHERN PLANTER. If the land to be planted is clay, it must be ploughed in fall or winter, for the purpose of exposing it to the frosts; that, thereby, it may become pulverized. And if infested with worms, or other pestiferous insects, although sandy or otherwise porous, it must be ploughed in the same season, for their destruction. If the agriculturist has on hand the wanted quantity of manure, he must start his carts to moving it out in March, and perhaps continue through April; and whether his field has already been ploughed or not, by the time the job is done, it is badly potched, by the treading of the wheels and teams. If the ground has been ploughed, it must be ploughed again, for the purpose of turning down the manure; and this is double work and cloddy to boot; nay worse, for the team and ploughman have a tough job in getting through the trodden earth, and tangled corn-stalks, and straw: and if it has not

been ploughed, the last mentioned objections are equally applicable.

My mode is to get out the manure at my leisure,—the sooner the better—but if by June not much difference; and if the land should be potched in so doing, not much difference for this either, for the covering matter will prevent the land from baking, and the growing roots will open the pores anew.

Unfermented dung when applied directly to growing vegetables begets rust and other diseases; and if these be eaten by man or beast, they have a deleterious effect: but if instead of converting these vegetables into food they are ploughed down for manure, the deleterious quality must by decomposition, be thoroughly dissipated. Colonel Taylor has justly remarked, that “the earth will no more bear gorging with dung, than the stomach of man with food,” and I say that disease will as certainly follow the one practice as the other. A weakly constitution, and poor land, will bear less; and a robust constitution, and rich land, will bear more food.

The custom is to spread the manure, plough it down, and plant immediately; by which process poor earth is brought to the surface, consequently the crop takes a wretched start, the puny roots presently enter and feast on the rich dung, which gorges the plant, and disease is the consequence. By my proposed practice, the ammonia, or essence of the manure, has time to sink six or eight inches before the fallow plough shall again lift it to the surface, when and where it is ready for immediate and congenial action on the young plants; and the coarse manure which shall be turned under, will, with the aid of industry, produce a bountiful and nutritious crop.

ZA. DRUMMOND.

Amherst, Nov. 1841.

We return our thanks to Col. Isbell for the promptitude with which he has furnished the following reply to the inquiries in our last.

Willow Banks, Nov. 29th, 1841.

Dear Sir—My attention has been called to the publication, in the November No. of your paper, of a letter addressed by me to Doctor N. M. Osborne, in which a brief outline of my mode of cultivating corn, is given; and in compliance with your request I take pleasure in furnishing you with a more detailed statement of that method.

To carry out my plan, I am careful, in fallowing, to turn under all vegetable matter on the land, and let it remain so during the season of the corn crop. Before planting I harrow with light harrows, then lay off the rows with a small trowel-hoe plough, not cutting more than two inches, so as not to turn up the turf, having

the rows on common high land, 5 feet 3 inches wide, and 2 feet 3 inches in the drill. On low, wet land, the distances might be lessened. I then plant early and cultivate quick, running single straight tooth harrows, with seven teeth in each, the frame in the form of Y. This is the kind of harrow I have used, though upon maturer reflection I am inclined to the opinion, that a harrow with nine teeth would be better, so as to run only twice in each row, and at the same time cutting the top of the land more than one with seven teeth. I harrow four or five times, and hoe two or three times, according to circumstances, drawing up but little earth to the stalk.

The result of this kind of cultivation is, that the land not only remains light throughout the season, but the vegetable matter beneath, continually decomposing, is as continually furnishing the young corn with nutriment, so that the crop when maturing is as well or better supplied with manure than at any other stage of its existence, and hence is protected, in a great degree, from burning, which generally happens when the stalk has exhausted the strength of the land about it. And here you will discover the reasons for my preferring the spring fallow. By fallowing in the spring, much less vegetation springs up, so I have much less difficulty in destroying the grass with my harrows and hoes. Another reason is, that in the spring fallow, the turf, or other vegetable substances, are undergoing a state of decomposition throughout the growing and maturing of the crop, while with a fall fallow, this decomposing would cease long before the crop could be matured.

The most plausible objection raised against the method practised upon by me, is, that it increases the labor with the hoe. It is true I now have more laborers at the hoe than formerly, but it is attributable to the fact that after the corn is planted it requires fewer hands to harrow than to plough, so it is only a transfer of labor from the plough to the hoe. I will not undertake to say that mine is a labor saving plan, but I am fully convinced it is a land saving plan, for since I commenced the system I have never discovered the least disposition in the land to be washed by summer rains, although hilly and of a light sandy loam. This method, contemplating as it does the cultivation of land with as smooth a surface as practicable, leaves the field in excellent condition for the succeeding wheat crop, it not only being very light, but when ploughed for wheat turns up the decomposed sod, which presents the field with the appearance of a fine top-dress. As to the quantity produced by this mode of cultivating and those heretofore used by me, I discover no difference. Cultivating on the four field system, and grazing lightly, is, of course, in furtherance of the plan proposed by me.

Respect'ly, yr's, &c.

JAS. ISBELL.

For the Southern Planter.

Taylor'sville, Nov. 1841.

Mr. Editor,—Of all known vegetables, that which I think would most amply repay the Virginia farmer for the trouble of cultivation, is the Irish potato, (*solanum tuberosum*.) The potato is a native of America, and was carried from the colony of Virginia to England about the year 1640, where it was soon eagerly seized upon as a valuable addition to their rural economy, and now, as is generally known, forms the main source from which the poorer classes of the whole kingdom, but particularly of Ireland, draw their means of subsistence. The cheapness and simplicity of its cultivation, its great product, and the fact that it is probably the most nutritious vegetable that we can cultivate, should cause the potato to be highly esteemed, and should induce our farmers generally to plant it extensively, with the view of its forming a most valuable article of food and comfort for the negro race. Much might be said on the many different methods of cultivating this most valuable plant, but were I to enter into a minute account of the culture of the potato, I should trespass too greatly on your columns; I shall therefore confine myself to a brief description of that which I conceive to be the best.

Having first properly prepared the land in which you intend to plant your potatoes by ploughing, (or spading if it is but a small crop) and raking it, and carefully removing with the hand all roots of grass or weeds, that the rakes have failed to carry off, lay it off with furrows of from two feet to two feet and a half apart; in these furrows put a considerable quantity of manure from the stable yard, and immediately upon that place your bits of potato, which should be quite large, not cutting your potatoes into more than two pieces when small, nor into more than four parts when large, unless they are of very great size: then cover them with from three to four inches of earth. When the young plants are regularly up, weed them, throw a little earth around them, and re-plant where they may be missing. They will require a second working about six weeks afterwards; at which time you should hill them up considerably. A third working is necessary about the time that the flowers of the plant begin to make their appearance; they should be entirely freed from all weeds, and a large quantity of fresh earth placed about the plants at this time of working. It will be unnecessary to disturb them again after the third working, if it is properly executed.—About the 1st of September, after the vines are entirely dead, dig your potatoes and place them in a dry cellar, where there is no possibility of their freezing, and they will keep readily until late in the ensuing spring.

There are many fine varieties of the potato;

but for the purpose which I have indicated above, I think the Rohan best suited; for, although it wants the delicious flavor of the Mercer, and other good varieties, yet I think it greatly preferable to them on account of its wonderfully great yield. I think it better to change the stock of your potatoes once in every three or four years, which, by the way, I conceive to be the case in regard to almost all plants that we cultivate.

A small quantity of potatoes should be planted during the first mild weather after the middle of February, for the summer consumption, but the fall crop should not be planted until the last of March, or first of April.

With the sincerest wishes, sir, that the Planter may meet with the success which it so richly merits, I am, your obedient servant, X.

The Editor of the Southern Planter will much oblige "A Naturalist," by correcting the following errors that appear in his two last communications:

At page 197, for "Sarvacenia Flara," read "Sarracenia Flava."

At page 216, the 5th word of the 12th line from the top of the 1st column, should be "which" instead of "and."

At the same page, the 2d word of the 25th line from the top of the 1st column should be "such" instead of "rough."

At the same page, the 7th word of the 24th line, from the bottom of the 1st column should be "quantities" instead of "quantity."

At the same page, the word "chygroscopice," in a parenthesis, of the 2d column should be "hygroscopiceté."

POULTRY.

"When," says M. Bosse, "it is wished to have eggs during the cold season, even in the dead of winter, it is necessary to make the fowls roost over an oven, in a stable, in a shed where many cattle are kept, or to erect a stove in the fowl house on purpose. By such methods, the farmers of Auge have chickens fit for the table in the month of April, a period when they are only beginning to be hatched in the farms around Paris, although further to the south. It would be desirable that stoves in fowl houses were more commonly known near great towns, where luxury grudges no expense for the convenience of having fresh eggs." It is worthy of remark, that the Irish peasantry, whose poultry occupy at night a corner of the cabin, along with the cow, pig and the family, frequently lay very early, in consequence of the warmth of their night quarters; and there can be no doubt that this is the chief secret for having new laid eggs in winter, paying at the same time due attention

to protect the hens from wet, and to have them young, or at least early in moulting.—*From the Poultry Yard, by Peter Roswell.*

BARRETT'S GARLIC MACHINE.

The Editor of the Southern Planter, in speaking of our notice of this machine, remarks:

"If the machine is all that it is described to be, the inventor will obtain a suitable reward for his ingenuity in bringing it to this market [Richmond, Va.] Our millers are proverbially enterprising and liberal."

We most cheerfully concede to the millers of Richmond, all that is claimed for them by the Editor of the Planter, on the score of enterprise and liberality—the high standard to which they have brought their flour is indubitable proof of the possession of the first quality, and their location is as pleasing an evidence that they enjoy the latter. And while we make these concessions, we will remark, that *Barrett's Garlic Machine* from its intrinsic value, is eminently entitled to every thing we said in its favor, and that before we ventured to speak in its praise, after having examined it, being pleased with the principles of its construction, we visited Mr. Weirman's mill, where one had been many months in practical use, under a skilful miller, and there satisfied ourself fully of its utility. Thus confirmed in our good opinion of the machine, and of its worth, we felt it to be our duty to say what we did, and we are confident, that if any of the millers of Richmond were to try it, its use there would become as extensive as the flouring mills themselves, for no miller of correct judgment, after seeing one in operation, would rest until he had added it to the other appointments of his mill. It is, in fact, one of those machines, whose simplicity and economy cannot fail to commend it to any careful observer.

American Farmer.

In this handsome tribute to the millers of Richmond, no more is said than is due generally to the millers of Virginia. We are authorised to say that any substantial improvement in the manufacture of flour needs only to be presented to the millers of our State to be properly appreciated, and suitably rewarded.

CLAY MIXTURE ON SANDY LAND.

A correspondent of the Western Farmer gives the following as his experience of the value of mixed clay with sandy soil:—Several years since, when a resident of New England I purchased a piece of dry sandy land, denominated there, "pine plains," that had been very much worn. A portion of it, about 1½ acres, was on

the verge of a deep ravine, and a little more elevated than the remainder of the lot. This piece had been sown the fall previous to rye, and stocked to clover. The rye was harvested—an inferior crop—and the ground, I found in the fall, was, not to appearance, more than half stocked. Not having manure for a spring crop, and clay being handy, I carted on to the piece about thirty ox-loads of clay; this, however, was not pure, but supposed to contain one-third sand; the same was spread upon the surface of the ground in the fall. In the spring it had formed a complete coating over the whole surface; the result was a heavy crop of clover. The next spring about twenty loads of yard manure was spread upon it. It was then broken up, rolled, harrowed and planted to corn, about the 10th of May. The result was, about *ninety bushels of sound corn*. I had corn enough for my own use and sold about fifty bushels for fifty dollars. This was my first experiment in farming. It is nearly eight years since the clay was applied, and I am told the ground is still benefited by it. The application was continued on other portions of the lot with equally beneficial results as long as I occupied it.

TOBACCO.

We published some time since a communication to the Farmers' Register in support of a practice said to be common with Mr. William Old, of Powhatan, of cultivating two lots alternately in oats and tobacco; the oats being turned in as an improver. The celebrity of the gentleman alluded to has, we find, excited great interest in the communication. We therefore feel bound to say that a correspondent of the same paper signing himself A. M. H. objects to the practice, and recommends in its stead a three-field system in which clover shall take the place of oats: he says:

"I consider that clover, on account of its early protection to land from sun and evaporation, as well as its fertilizing properties, has no equal as a lay. Oats, maturing rapidly, with an exhausting crop of seed, and drying up at once, cannot be so considered; and if turned under at maturity, as they must be to produce the most fertilizing effect, a naked fallow is exposed to the injurious influence of the sun at the hottest season of summer."

PRESERVATION OF BUTTER.

At a late council of the Royal Agricultural Society of England, a jar of butter was received from Henry Wood, Esq. as a specimen of the

successful mode adopted for its preservation when that article is intended for export to foreign climates.

Mr. Wood informed the council that this butter had been prepared on the 19th instant, (June,) according to the process adopted in eastern countries, where it was used for culinary purposes instead of hog's lard, which the Mahometan law prohibited, and would keep for any length of time in a perfect state of preservation, although it contained no salt or other additional substance. This preservative state of the butter was induced by the removal of scum, and the dissipation of the watery particles of fresh butter, effected by the gentlest possible application of sufficient heat to produce the result. Mr. Wood stated that in Asia this gentle heat was obtained by the natives by filling a large open earthenware pan with powdered and well dried cow-dung, and then setting fire to it, introducing into the midst of the burning cow-dung an earthen vessel containing the butter, which thus became melted; and when the scum, as it rose, had been successively removed, and the watery particles driven off by the heat, it was poured into a jar and preserved for use. Mr. Wood suggested that a sand-bath, properly regulated, might answer the same purpose as the dried cow-dung, and, as the process was so very simple, there could be no difficulty in preparing it; and that, when once prepared, the butter never became tainted. Mr. Wood stated that he carried with him to the Cape of Good Hope some butter prepared in the same way, a year previously, and which was there pronounced to be superior to the salted butter of the colony, and for culinary purposes far superior to lard.

A NEW INVENTION.

The Newark Daily Advertiser notices, with high commendation, a new and ingenious invention, the production of the ingenuity of a citizen of that place, Mr. Levi Bissell. It is a substitute for the ordinary car and carriage springs now in use, the elasticity and spring being produced by atmospheric air condensed in a cylinder, somewhat resembling that of a small steam engine, made air tight at one end, with a piston working in the other. Four of these springs have been in use in one of the cars on the New Jersey Railroad for some months past—the whole weight of the body being supported by the four columns of condensed air in the cylinders—and we believe with universal satisfaction. Passengers readily detect the difference between that and the other cars by the superior ease and comfort of its motion. It is stated, by those who have had the fullest opportunities for observing, that over the roughest and most uneven places, where the inequalities of the track render the jar exceedingly disagreeable with

steel springs, the air springs make the motion perfectly easy, so that a passenger may even read with comfort while riding.

MENDING STEEL PENS.

But few people are aware of the fact, that ordinary steel pens may be made to perform at least four times their usual service, as easily and with as little trouble as that of mending a common quill pen. The steel pen usually fails in the first instance, by having the corners of its point worn off, which prevents the ink from readily taking to the paper. This may be usually corrected in a minute or less by means of a fine flat file, such as is used by watchmakers, and may be procured for a shilling. Hold the file in a horizontal position, or let it lie on the table, with its point from you. Then place the point of the pen on the point of the file, holding the pen in a vertical position with its back a little inclined towards you: draw the file towards you, gently pressing the file. Repeat this two or three times as the case may require. Then hold the pen nearly in a horizontal position with its point from you, and with one side of its nib resting on the file, draw the pen towards you, repeating the operation with both sides of the nib, till by trying it with ink you find it sufficiently pointed. A small magnifying glass is convenient in this case, but the operation may be very well performed without it.—*N. Y. Mechanic.*

CHEMISTRY.

When butter is to be made, if a little old butter be put into the cream, the butter will come from much less churning. When soap is to be made, if a little old soap be put into the lie and grease, the soap will be made with considerable less boiling.—*Farmer and Gardener.*

We have been favored with a copy of the address delivered by Mr. James M. Garnett before the Fredericksburg Agricultural Society. Mr. Garnett is too well known as an agricultural writer to require an introduction from us. Without pretending to preserve the beauties of his style, we will endeavor to do all that our limits, in any case, permit, to give a condensed view of the practical results at which this eminent gentleman has arrived.

First, Mr. Garnett is fully satisfied that neither the Brown corn nor the Dutton, so celebrated at the North, are suited to our climate.

Secondly, that corn should always be sowed, because experience has satisfied him that this process renders it more impervious to a

drought, and that in a large majority of years we are visited with a dry season. The twin corn, which, he says is not to be confounded with the Baden, he prefers to any other.

Mr. Garnett recommends the following mode of cultivating potatoes, of which he has heard others speak very highly, but which he has not yet had an opportunity to try :

"First plant them, either whole or cut, in well prepared earth, about fifteen inches each way, and three inches deep. Then cover them eight or ten inches deep, with pine leaves—if you can get them—if not, with straw or refuse hay. When fit for use, take them from under cover without disturbing it any more than can be avoided. This practice is followed by many ; but the improvement consists in leaving enough potatoes under the same cover, in the fall, to produce a second crop the next year, which they will do, much earlier than you can procure them by any other process."

Of the different varieties of turnips, Mr. Garnett prefers Sinclair's white flat, for the product, and the Scotch Aberdeen, for the flavor. Concerning Mr. Garnett's favorite, the Guinea-grass, we make the following extract :

"Before I quit the subject of experiments, I will once more offer you a brief notice of the Guinea-grass. The experience of the past season has confirmed me in the belief, that it is probably the very best grass we can cultivate in our high, dry soils, especially such as are rather sandy than stiff. Indeed, I believe, that from latitude 39, as far south as our Government extends, it would prove our surest reliance as green food for horses and cattle—particularly during seasons of great drought. My reason for thinking so is, that mine has been twice subjected, since I first planted the roots, to this severe test, and on both occasions has remained green, while all the other plants on the farm were suffering extremely. It has both a fibrous and tuberous root, it will grow in ordinary land, to the height of five or six feet, and will bear cutting three or four times, during the season, at an average height of at least three feet, which no other grass will do, of which I have any knowledge. After the first year, during which it requires some cultivation, the growth soon thickens so as to smother all other plants that may spring up amongst it ; and it is now so acclimated as to spread, not only from its roots, but its seeds, a large proportion of which now ripen with us, although it is still safest to propagate it from the roots. These will bear transportation for several weeks, without losing their vitality, if wrapt up either in cotton, tow, moss, or soft paper. They may then be buried in the earth,

until the season for planting, which is as early as the earth ceases to freeze hard. The roots should be cut into pieces an inch or two long, then buried about three inches deep, five or six inches apart one way, and twelve inches apart the other. Two or three workings with the hand hoe, during the first year, will amply suffice to insure their thriving, after which they require no more labor but to cut the growth for use."

Mr. Garnett well urges the established doctrine, that the highest cultivation yields the greatest nett profits, and that the best investment that a farmer can make of his money, is to "lend it to his land." On this subject we make the following extract :

"Of this I could give you innumerable proofs, but let three suffice for the present. In an excellent address by John Sanford, Esq, President of the Onondaga Agricultural Society, which he was lately so kind as to send me, there is the following statement of the capacity for improvement of the lands in that part of New York. He says—'In our State 53 bushels of wheat, 58 of barley, 50 of peas, 132 of oats, 135 of corn, 750 of potatoes, and 5 tons of hay, have been grown per acre. In 1837, I grew, (says he,) 1,400 bushels of potatoes on 3 acres, rutabaga 1,000, mangel wurtzel 1,150, carrots 1,200, and sugar-beet at the rate of 2,100 bushels per acre, making 6,000 bushels ; and in 1838, I cut 40 tons of clover and herds-grass from 10 acres.' This proof is taken from New York ; and now for the two within my own knowledge. The first is, that several years ago, I knew 103 bushels of wheat and a fraction, to be made from only two acres of land, manured from the cow-pens, and this too, in the county of Stafford, which is as remarkable for poverty of soil as almost any in Virginia. And in my own county, I have known 30 bushels of wheat—at the rate of 504 bushels of Irish potatoes per acre, and 75 bushels of corn per acre, to be made from a soil similar to that which was within a hundred yards of it, but unmanured, and which produced barely 15 bushels. Here was an increase of more than fourfold, at no other additional expense than carting out and applying the manure made on the farm, to land which had certainly been cleared more than seventy years. I could state many more cases of still greater products, but deem it needless, as this suffices to prove an increase of more than four hundred per cent.—which far exceeds any shaving that I have ever yet heard of."

An error prevails very extensively, says Mr. Garnett, that rye and oats exhaust land more than wheat ; whilst the experiments of the ce-

lebrated Dr. Von Thayer satisfactorily established the fact, that whilst wheat exhausts the fertility of land in the proportion 4 per cent. per bushel of product, rye exhausts in that of $3\frac{1}{4}$, barley of $2\frac{1}{4}$, and oats of only $1\frac{6}{10}$.

We happen to know something of the zeal and devotion with which Mr. Garnett has nursed the little Society of which he has so long been the President; and if they attain that degree of celebrity and usefulness, that we are happy to hear may be presaged from the success of their last meeting, not only for that, but for their very existence, will they be indebted to the fostering care of JAMES M. GARNETT.

REMEDY FOR FILM IN THE EYE OF A BEAST.

A correspondent of the Yankee Farmer, suggests what he considers a new remedy for a film, produced by a blow or other accidental causes of a similar nature, *i. e.* spitting *tobacco juice* into the eye of the animal. He remarks, that he has seen it tried only twice, but each time with entire success; and with very sensible caution concludes, by saying "the remedy requires to be more fully established." We can assure our cautious friend, that the remedy has been fully established down South for years. The memories of our oldest tobacco chewers reach not the antiquity of its discovery. We have often seen tobacco juice spit in a horse's eye when weeping or looking weak, and entire relief afforded.

Temperance Advocate.

MR. CLAY ON HOGS.

We have been kindly furnished with the following extract from a letter, written by the Hon. Henry Clay to a gentleman in this vicinity, upon the subject of raising hogs. Mr. Clay's agricultural reputation is hardly inferior to his political celebrity.

"You inquire about hogs. The best race, I think, is the Berkshire; put your boars to the sows in the first week of December, regulating the number by the number you want for the pen, averaging five pigs to the sow. Your pigs will all come about the same time, early in April: about the 10th of May, when they can crack corn, have the sows all spayed and the boars altered. They will form the best part of your pen of killing hogs the ensuing fall. Select your boars and sows from the April pigs to produce another year—keep them apart until the first week in December, and then put them together, &c. That is the whole system, except that you should always remember, that no one

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of the domestic animals should ever suffer for food, from the time it comes among us, until it fulfils its final destination. Starving never succeeds with man or beast."

VALUE OF ASHES.

Professor Jackson, in one of his lectures in Boston, in illustrating the manner in which soils might be rendered fertile, said that: "A farm within his knowledge of blowing sand, a pine barren, and almost hopeless, on which ten bushels of corn to an acre, could scarcely be grown, by the judicious application of ashes, had been made to produce forty or fifty bushels to the acre." We do not question the correctness of Dr. Jackson's statements. Our observation has convinced us that on sandy soils, with the exception of clay marl, there is nothing more beneficial in the application to such soils than ashes; and, very fortunately, unless uncommon quantities of acid exist in such soils, leached ashes are nearly as beneficial as unleached ones. Ashes do what lime cannot; they render the soil more tenacious of moisture; and, although their action is not as prompt or efficient on cold, sour soils, they are, for the reason assigned, considered as valuable on light, sandy ones. Of this fact the farmers on the light soils of Long Island and New Jersey are well aware, and in the gathering and application of ashes find a certain source of profit.

Philadelphia Saturday Courier.

GOVERNOR HILL'S ADDRESS.

Of all the pursuits of life, we hold the occupation of the farmer, followed as it is, under the blue vault and in the open air of heaven, to be not only the most enticing, but the most redolent of health and happiness. We, therefore, most heartily subscribe to the following forcible extract from an address of the Hon. Isaac Hill, delivered before the Agricultural Society of Kennebeck:

"No men are generally better qualified or more discreet and safe agents for executing the various purposes of civil government, than the intelligent farmers of our country towns. For the last thirty years I have been conversant with much public business of a State and of the nation: I have known men of no occupation more trustworthy or more able so far as related to all the practical uses of government, than farmers who have left the plough for one or more weeks or months in a year to take seats in the Legislature, or manage the prudential concerns of a town, or administer upon estates, or even sit as judges in causes for trial. Rarely

will it be found that the well-informed man who has spent a portion of his time in public life—who has gone his round as a state legislator or even left his farm and his family to occupy a seat in Congress, who does not return to the labor of his farm, if he have been successful in that pursuit, with an appetite increased for a more zealous devotion to his occupation. I have myself been more or less in public life for twenty years—I have spent the time of several successive sessions by the side of some of the most talented and conspicuous men of the country in that desirable position, the Senate of the United States, and I have in succeeding years sat at the head of the councils of the State; but better and more satisfactory would have been the employment, had my constitution and education admitted the exercise, to have labored on land which I knew to belong to me, and on which I had the satisfaction of witnessing a growing annual production profitably increased by my personal efforts. I have in fact gladly retreated from a public position when my services might be dispensed with to do such work in the garden or field as I know how to perform.

"Let the soldier exult in the pomp of war,
The king in his self-throned hall;
The free-born farmer is hopper far
Than kings, and lords, and all.
His are no fields with carnage red,
And drenched with blood of the slain,
But hills and vales, o'er which is spread
A harvest of waving grain."

PLASTER.

The Editor of the American Farmer says:

"Our own experience has taught us, that plaster can only be applied with decided advantage on soils naturally dry, or made so by draining; that there, when judiciously used, it is of immense value upon corn and clover, and that it always acts most powerfully upon ground previously limed."

COB CRUSHER.

We are glad to find, from the inquiries made for it, that this article is getting into general demand. We were shown to-day a very substantial machine, made at the foundry of D. I. Burr & Co. in this city, which will not exceed the price of \$20, all complete, ready for connexion with the shaft of an ordinary mill. The article is extremely simple, and we should imagine perfectly efficient to crush the cob preparatory to its being reduced to meal between a pair of stones. Mr. Burr assures us that he has sold upwards of an hundred, and, notwithstanding the lowness of the price, never heard a complaint of one of them. We can answer for the general

style of mechanical execution in this establishment. We do not believe it is surpassed in the Union.

To the *cash* system, adopted by our friends, is the cheapness of this article, in part, attributable.

STOCK FARM.

Our attention was called a few days since to a splendid lot of sheep on their way to the stock farm of Capt. John B. Coles, of Nelson. We learn that this enterprising gentleman has lately made arrangements for going largely into the stock business for which we understand his location is admirably adapted. The sheep to which we referred consisted of Bakewells and Southdowns. We heard an offer of fifty dollars a piece for the Bakewells refused before they left our wharves. We have not the smallest doubt of the success of the enterprise.

BUTTER.

Although deficient in many points of good husbandry, Normandy has always been remarkable for her butter. The cattle, to appearance indifferent, afford a constant supply of cream, that is churned into the most delightful butter at all seasons of the year. The yield is not abundant, but more remarkable for quality than quantity. The butter is described as being of a "marrowy consistence," very superior to any thing known in England, neither hard in winter, nor soft in summer. Something of this is no doubt attributable to a peculiarity in their breed of cattle, but much, we suspect, is also owing to the very want of thrift, of which they are accused, and, in spite of which, it is said their cows yield this delightful butter. We are told that they are ignorant of roots, and that their pastures are by no means luxuriant. Now, we believe that a feed of dry hay, with short pasturage, is exactly the kind to afford butter of a "marrowy consistence," and of the most delightful flavor; and we believe, moreover, that this extraordinary *quality* will only be obtained at the expense of *quantity*.

We see that Mr. Biddle furnished the dinner of the Philadelphia Agricultural Society, a few days since, with some butter, the produce of his Guernsey cow, which, even in that butter region, attracted great attention.

This cow, although described as little else than a bag of bones, took the premium at the

show without difficulty, on account of the extraordinary quality of her milk. The characteristic "consistency" appeared in all its richness, and we are inclined to believe this importation a great acquisition to the stock of the country.

We once knew a little red cow whose appearance might have commanded, possibly, *ten dollars*—she gave regularly, when well attended to, about six quarts a day, throughout the year; but of those six quarts very nearly three were pure cream, and from that cream, was made the most delightful butter we ever tasted, with all the boasted "consistency" of the Guernsey breed; but alas! our little favorite was not *imported*, and lived and died without ever dreaming of the possibility of her taking a premium at an agricultural show.

VACCINATION.

It appears that Dr. Creely, a surgeon in Aylesbury, England, has lately made the discovery, that the cow pox is nothing but the small pox in the cow, and that the disease may be communicated at pleasure to the animal by innoculating her with the virus of the small pox.

We presume that he considers small pox as the original disease, communicated accidentally to the cow, in whose system the poison is deprived of its worst properties, and reduced to the quality of vaccine.

This discovery is important, because it affords a means of obtaining vaccine matter, at all times when it is required, without depending upon the dubious operations of nature or climate.

LUCERNE.

The following directions for cultivating this valuable crop are at the same time more precise and better adapted to our climate and soil than any that we have met with. They are taken from the South Carolina Temperance Advocate, a paper, by the by, which we would recommend very highly to all of our readers, especially such as unite a love of temperance with devotion to agriculture.

For the Advocate.

Mr. Editor,—A friend of mine, at my request, drew up the following statement of the value and mode of cultivation of lucerne, in the management of which, he has been very successful. Though not intended for publication, it may be acceptable to some of your agricultural

readers, who will, of course, modify his directions as to time of sowing, &c. to suit their respective locations. The writer lives in the hilly part of North Carolina, on a stiff soil of red clay.

A SUBSCRIBER.

LUCERNE.

Dr. Darlington describes grass as "having a cylindrical jointed stem, with the joints solid, and the intervening portions hollow, or, in a few instances, filled with a pith-like substance—the leaves alternate, one originating at each joint, embracing the stem with its base, and forming a sheath which is slit on one side down to its origin, and the flowers protected by those peculiar envelopes known by the name of *chaff*." Every such plant, he assures us, is a "true grass." This description includes Indian corn, broom corn, sugar cane, wheat, &c. while it excludes lucerne and clover. Whether lucerne be entitled to the denomination of a grass or not, it yields to none of them for soil feeding; and besides being more productive and long-lived, as well as more palatable to horses and cows, than red clover, it is free from its salivating quality. In seven years, I have cut thirty-five heavy crops of lucerne from one seeding, averaging five crops a year. The largest number of crops any one year, was seven, the smallest, four. Manure was applied once only during the time, and then as a top dressing. The soil was a deep red clay, made light by deep ploughing and manure.

Lucerne has a strong tap root, penetrating to a great depth. Hence the necessity of deep spading or ploughing. I have cultivated it only on upland; and don't doubt it will do well on any good corn land.

I have tried drilling and broad-cast, and much prefer the latter; first, because the number of plants being much greater, the yield is greater; secondly, because the labor of cultivation is saved. Some suppose that without annual culture with the plough or hoe, the plant must lose its vigor, and be overpowered by weeds and grass. Such is not the result of my experience. I have eradicated blue grass—the enemy most to be dreaded—by coultering, and cross coultering, harrowing and cross harrowing, until every root of the blue grass is torn up, and the surface of the ground completely pulverised, and then raking off the blue grass. This is to be done in the winter, once in three years, and a good top-dressing of rich manure should follow. I have used ashes and stable manure, separately and combined. The two combined, have given the best product.

PREPARATION OF THE GROUND.

Plough or spade deeply; pulverise completely; manure richly. Break up the ground in the fall, and the winter frosts will mellow it.

QUANTITY OF SEED TO THE ACRE.

If the seed be very good, the season very favorable, and the sowing done in the best manner, two gallons may suffice; but under any circumstances I would sow twice that quantity.

TIME OF SOWING.

Lucerne, like clover, if sown in the fall, will survive a moderate winter, and be destroyed by a severe one. I prefer sowing in September nevertheless, and running the risk. Should it survive the winter, it will give several good crops the ensuing year. Should it be destroyed, the ground is in fine condition the next spring for any crop you please. You may, in that event, sow lucerne again in the spring, or, after gathering a heavy crop of corn, run the same risk again the next fall.

When sown in the spring, the lucerne does not give a crop till the next spring. After attaining to the height of six inches, it begins to wither, and its sickly aspect induces in the inexperienced, the fear that his labor is lost. It will, however, bear the scythe without injury; and mowing is commonly necessary to destroy the weeds. If sown in the spring, the best time is from the middle or end of May, to the middle of June, the ground having been ploughed several times lightly at intervals of two or three weeks, until the superficial seeds of grass and weeds have been destroyed.

MANNER OF SOWING.

The ground being prepared as above described, and made as smooth and level as possible, by means of the harrow and brush, mark it off with a hand plough, or a small pole from the wood pile, into lands of six or seven feet, and scatter the seed as uniformly as possible. (It would be well to moisten the seed with warm water two or three days previously to sowing,) and then apply a heavy roller once, or a light one twice, and the work is done. The value of the roller is so little known in the South, that many of our great (large I should say) farmers are without that indispensable instrument. If you can't get a roller, the difficulty is easily obviated, by first ascertaining from a weather witch when there will be a hard rain, brushing in the seed just before it, and letting the shower do the work of the roller.

P. S.—I have seen it stated, and do not doubt the fact, that one seeding of lucerne will last twenty years.

CHEAP ROOFS.

We copy the following from the American Farmer. For our own part, we must confess we retain strong prepossessions in favor of a shingle roof over any other we have ever seen

or heard of. Under ordinary circumstances, split shingles are cheaper and more convenient than sawed boards and sheathing-paper, and the exterior coating, we presume, might be applied to the one as well as the other. For security from leakage, we have never seen any thing superior to a shingle roof.

“The simple mode of roofing out-houses by nailing thin boards on light rafters, may be introduced to very great advantage, particularly in the country. It is only to subject boards before using to the action of fire, by way of thoroughly seasoning them; nail them on immediately, and cover them with sheathing-paper and a dressing of tar; and a covering, almost for a lifetime, may safely be calculated upon.

“The rafters, 3 inches deep, 1½ thick; the boards half an inch thick, straightened on the edges and closely nailed. The following composition for covering such a roof was employed at Wickham twenty years ago, and is at the present time as good as when first laid. The roof is nearly flat, having a run of one inch only to the foot, the boards being securely nailed and covered with a course of sheathing-paper, such as is used under the copper-sheathing of ships, made fast by small flat-headed nails. To 8 gallons of common tar add 2 gallons of Roman cement, 5 lbs. of rosin and 3 lbs. of tallow; boil and well-stir the ingredients so as thoroughly to incorporate them, and lay on to the roof while hot, with a brush, spreading it very evenly; then sprinkle it while hot with sharp, sifted sand, and when cold, tar and sand as before, after which a single coat of tar once in five or six years will preserve the roof for an age.

“To the above may be added, an incombustible, impenetrable wash, prepared according to the following directions:—Slake stone-lime with hot water in a tub, covering it to keep in the steam; pass six quarts of it through a sieve, it being in the state of fine dry powder, and add to it one quart of fine salt and two gallons of water, boiling and skimming it. To every five gallons of this boiled mixture, add one pound of alum, half a pound of copperas, and by slow degrees half-a-pound of potash and four quarts of fine sharp sand. The mixture will now admit of any coloring matter that might be preferred, and is to be applied with a brush. It looks better than paint, and is as durable as stone; it will stop leaks in a roof, prevent the moss from growing and injuring the wood, rendering it incombustible; and when laid upon brick-work, causing it to become impenetrable to rain or moisture. G. D.”

The following recipe is taken from the New York Mechanic. We know nothing of its vir-

tues: if efficient, it is invaluable. Many of our most beautiful ornaments as well as useful instruments may thus be protected from the corroding effects of rust.

TO PRESERVE STEEL FROM RUST.

Take some melted virgin wax and rub it over the article to be preserved. When dry, warm the article again so as to get off the wax, and rub it with a dry cloth until the former polish is restored. By this means all the pores of the metal are filled up without injury to the appearance, and rust will not attack it unless it is very carelessly exposed to constant humidity.

FOOT ROT IN SHEEP.

An intelligent and successful wool-grower informs us of the method by which he entirely prevents the inroads of this disease.

It is known that the sheep, when removed from its native mountains and rocks, to the soft and luxuriant pastures, no longer has its hoofs worn away as in a state of nature, by which as they grow they are preserved fresh and sound; but the outer part, which is naturally intended to support the weight of the animal, grows out of all bounds, until it laps more or less over the soil, and retains the accumulated earth and filth which collects within. From this the disease originates.

According to our informant, by repeatedly paring off this crest of the hoof, as often as necessary, the disease is effectually prevented. Where it has already made progress, something more is necessary, as the application of turpentine, or tar, with cauterization, the disease being very similar in nature to the "foul in the foot" in cattle, which is successfully treated by rubbing a hot iron rod with tar between the hoofs. Although it had made such progress in the flocks of our informant, as to cause indirectly the loss of several hundred sheep, yet he succeeded after a year or two of careful attention, in removing it entirely.

He thinks it rarely reaches that degree of malignancy described by European writers, by whom it is represented to become contagious, and occasion directly the destruction of the animal; or at least that several years would be required to produce such a result; death appearing here to be caused by the severity of winter operating on weakened and emaciated animals affected by the disease.—*Genesee Farmer.*

TOBACCO.

This important product is attracting the attention of the whole agricultural world. Its cultivation is no longer confined to Maryland and Virginia, but our sister States of the West

are making vigorous exertions to compete with their elder sisters. To sustain our supremacy we of the East must keep wide awake; their richer lands must be opposed with more skilful cultivation, and greater competition must awaken greater enterprise. We are glad to find, from the following notice, that this great staple, the source of uncounted millions to the wealth of Virginia, is working its way into the generous soil of our western counties:

TOBACCO IN KANAWHA.

This county, in which four years ago not a hogshead of tobacco was raised, is now able to turn out from one to two hundred hogsheads per year besides an enlargement of our crops we have very much improved in the quality of the article. Many of our principal farmers are now zealously engaged in the business, and before long there will be hardly an agriculturist in this country that will not endeavor to raise more or less. Sufficient experiments have been made to convince us all that tobacco can be cultivated here as well as in any part of Old Virginia. Persuaded of the entire practicability of making it a profitable business, our citizens have determined to petition the Legislature for an inspector at this place. Mr. Mark Antony, of Campbell county, a gentleman of great experience in this line, has been raising tobacco for the last two or three seasons in Fayette, and he has assured us that he has been entirely successful, and that he means to go into the business largely after this year. The farmers of Mason and Jackson, we believe, have no doubt but that their soil is very well adapted for yielding this most valuable crop. When it is recollected that tobacco is a cash article, a thing, by the by, very desirable to our people, there are few, we imagine, who will hesitate to turn their best attention to a matter of so much consequence to their interests.

Kanawha Jeffersonian.

Amongst the thousand projects, which will hereafter characterise our day as the era of inventions, we select the following for its ingenuity and simplicity. If there is not some defect in the principle, which we confess ourselves unable to detect, it is a wonderful invention, and calculated to produce a tremendous revolution in saw mills. It dispenses with a great deal of work and an immense deal of friction. The notice is from the *New York Mechanic.*

A STEAM SAW MILL.

BY MR. B. D. BEECHER, OF PROSPECT, CONNECTICUT.

This is a very novel invention, on a simple and rational principle, and should have been introduced long before. The engine cylinder is

secured in a horizontal position, with a piston rod extending through the length of it; and to each end of this piston rod is attached a saw, which works horizontally; so that two logs can be sawed at the same time, yet without the complication of cranks, pitmans, shackle-bars, or geer. The logs are set or adjusted by elevation, and the carriages are moved forward by a simple connection with the valve rod of the engine. This plan must go ahead of all other steam saw mills, and is likely to reward the well known enterprise of its ingenious inventor.

We have seldom been called on to resist a stronger temptation to a betrayal of confidence than the one we have conquered in withholding from the public the name of the author of the following communication. We have not the pleasure of a personal acquaintance. Of his success as an enlightened agriculturist we have seen a little, and heard much. Of his capacity for sound reasoning, and his facility of communication, we want no better proof than the following essay.

Our author will see from the first article in this No. which was in press before the receipt of his communication, how we have anticipated his view of the value to be attached to the early maturity of wheat.

To the Editor of the Southern Planter :

You seem to be at some loss to decide whether northern seeds transplanted to southern fields will have the effect of accelerating or retarding the maturity of the crops. You incline however to the opinion, that they will be retarded, and cite two experiments from Lindley and Knight in support of this view of the case.

With due deference, it appears to me, that the experience of Knight and Lindley leads to the opposite conclusion. They both maintain that the seeds of vegetables which have been grown for several years in a dry, quick soil, acquire a constitution which adapts them to the production of a rapid development of their progeny, when removed to a cold ungenial soil.

It is a well established fact, that northern seeds planted in southern soils will invariably produce the earliest vegetables of their kind—and *vice versa*. It may be accounted for philosophically in the following manner: The northern summer is short, and the season of vegetation comparatively limited. For the plant to pass through its various stages of growth at all, it must progress with great rapidity. Whoever has remarked the progress of vegetation in a northern climate, must have been struck at its wonderful development. The effect upon the germ is, that it necessarily acquires the habit of

the plant; and the aptitude to early maturity is transmitted to its offspring for several generations, even when transplanted to regions where the seasons are of much longer duration.

A number of instances have come under my observation which fully confirm the truth of this fact. I have received seeds and plants from various parts of the U. S.; and compared with our native productions, I have uniformly found that the fruit ripened earlier or later, as the seeds were derived from the north or south. Northern corn may be gathered much sooner than our native varieties. The same variety of wheat from northern seed may be reaped several days sooner than when grown from our own seed. The earliest variety of garden pea I have ever known was received some years ago from the northern part of N. York. For two or three seasons it came to the table a week sooner than our own earliest varieties; but notwithstanding the greatest care in the selection of the seed, it is now not more than two or three days in advance of them. I have also discovered that many varieties of winter apples obtained from northern nurseries, will not answer our expectations. The fruit comes to premature perfection, and falls early in autumn, before the time of gathering. The summer varieties of the apple may very properly be selected from the north. Early peach trees should also be preferred from thence, on the same principle; but when a succession of fruit is desired, the later kinds should be obtained nearer home, or a little farther south of us.

Southern seeds on the contrary, when taken to the north, are seldom worth the trouble of planting. I have seen melon seeds from New Orleans which would barely perfect their fruit before frost. Our varieties of corn, taken to the north, will not ripen their grain one season out of ten. They produce gigantic stalks, similar to the growth of our own fields, but the season is too short to bring the ear to maturity. Many attempts have been made to acclimate our famous hominy corn, even on the other bank of the Potomac; but never with success as far as I have heard. It cannot be made productive north of Virginia, except possibly in the lowest and warmest parts of Maryland. I have frequently sent small parcels of seeds, both of ornamental and useful plants, to some of my northern friends; but with few exceptions they do not furnish the means of perpetuating themselves.

But notwithstanding that the northern seeds ripen so much earlier than our own, it should not be inferred from thence that it would be wise or proper to rely on them, even if they were accessible, to the entire exclusion of our own.—Some degree of judgment and experience is necessary, to enable one to make a judicious discrimination. As a general rule, when early maturity is chiefly desirable, it will be safe to plant all species which yield their fruits before the arid

heats of our summers overtake them. If the period of ripening is later than that, they will not repay the cost of cultivation. They cannot contend with our excessive droughts. The northern squashes, which are so much superior to our pumpkins, will not flourish in our latitude. The celebrated Dutton corn, which Judge Buel labored so earnestly to introduce into general culture, is totally worthless in Virginia.— Its time of ripening here was about the first of August—the most critical period, as all farmers know, of the corn crop. The consequence was, that it became withered and dried up beneath the scorching rays of our southern sun. Corn is an autumnal crop; and there can be no advantage gained in hastening its maturity earlier than September. On the other hand, wheat is with us, so to say, a spring crop. Formerly it came to the scythe in May; and even now, though no care has ever been exercised in the selection of seed, after the manner of the English farmer, the latest varieties ripen by the 20th or 25th of June; but not before the accession of a settled state of hot weather. The great desideratum to the Virginia farmer, is the possession of a productive variety of wheat that will ripen at least as early as the 10th of June; for we all know that in proportion as the time of harvest runs into the hot season, the greater is the liability of the wheat crop to be diminished in product. A cool June is almost invariably accompanied by an abundant harvest; while a warm, humid spell is attended with disastrous consequences. Unfortunately, the character of the weather at this most critical period, is generally so unfavorable, that a sultry June—for the last half at least—may be regarded as in accordance with the laws which regulate our climate. It follows then, of necessity, that as long as the time of harvest shall be protracted to the latter part of the month of June, there never can be any certainty, nor indeed probability, of reaping heavy crops of wheat. A good crop at that time would rather be an exception to a general rule, than in conformity to it. We have all seen our fields of wheat dry up rather than ripen beneath the influence of a hot sun. We must endeavor to restore the old order of things. The change has not been so much in the seasons as in the carelessness of farmers in preserving the purity of their seed. Much might be effected if each farmer would select for himself a small quantity of seed wheat every year, even if it were not more than a bushel, from the earliest ripened ears in his own field. In a short time he would have the satisfaction of perceiving a sensible improvement, not only in the quality, but in the early maturity of his grain. He should not only endeavor to obtain the earliest varieties, but he should also bestow the necessary care upon the soil, so as to give the seed a warm bed, a *suitable matrix*, for its develop-

ment. He will never gain any thing, but rather he will lose time, by running after every new wheat he may hear of, as is now so much the vogue. The California wheat, the rock wheat the fly proof wheat, and the many others which might be enumerated, though all very valuable, perhaps, are no better nor so good, as he might obtain by careful selection from his own fields. In the mean time, the seedsman might very materially aid the farmer, by obtaining from the north, seed of all the earliest varieties. The northern seedsmen have imported many kinds of wheat from England, some of which may prove exceedingly valuable, and offer the desideratum that is wanting. The efforts of all should be directed to procure the earliest varieties, and then to preserve them in their purity; for it is throwing away land, seed and labor, one or all, to persevere in sowing late wheat.

I am fully sensible that I have diverged from the topic which I designed to elucidate; but the importance of the subject which led me astray, will, I hope, constitute a sufficient apology.

A FARMER.

MAJ. YANCEY'S ADDRESS.

We have been so fortunate as to procure a copy of an address delivered before the Agricultural Society of Buckingham, by Maj. Charles Yancey. Maj. Yancey has devoted a long life to the pursuit of agriculture, and has amassed a large fortune by the sweat of his brow. When called on for an address, like a sound practical man as he is, he preferred to detail his own mode of operations, to give to others the benefit of his hard earned experience, rather than to seek the reputation of an *orator*, by repeating common place encomiums upon the art of agriculture, and indulging in the too frequent strain of rapid eloquence. The address is replete with instruction—not a line but tells. If our copious extracts serve to teach others to do as the Major has done, we shall be pardoned the extent of our notice of this valuable production.

PLASTER AND CLOVER.

The Major conceives that clover and plaster must form the basis of improvement for our exhausted lands. On this subject he says:

Forthwith resolve to commence upon the improvement of your exhausted fields, by making and applying all the manure in your power, of animal and vegetable matter, such as corn stalks, wheat straw, and leaves taken from the poorest part of your woodland, designed for timber and not for cultivation. Much can be done in this way to increase your quantity of manure; and then rely upon clover and plaster, as the great

auxiliary of the whole vegetable kingdom, by which you can renovate your exhausted lands, and bring them up into good tilth again. Now, gentlemen, let me intreat and beseech you to commence the clover husbandry as the only known process by which you can render your lands fertile; you must not mind the expense; the money expended will return to you with usurious interest, in augmented crops, and renewed fertility of your exhausted lands, and amply reward you for all expenses, time and labor employed. One of two things must of necessity be done, either to improve your lands, or sell the bones of your fathers, as too many have done, and exile yourselves and families from the attachments of nativity, friends, and relations, and make an unmanly retreat, to the far lands of the south-west, where you will risk the diseases incident to a hot sun, and perchance, to many members of your family, an untimely grave.—Now gentlemen, let me again conjure and entreat you, being sincerely desirous to promote your interest, and being able from many years' experience to recommend the clover system, as the best mode of improvement—to prevail on you, one and all, to adopt it the next season—to sow upon your wheat and oat land a gallon of seed to the acre, bearing in mind, that poor land requires more seed, as many will fail to vegetate. Poor exhausted places in your fields should have a dressing of some kind of manure, and be frequently plastered. Oats should be seeded thin, as they incline to branch much of moist springs, when they will injure the young clover. My preference as to time of seeding upon wheat land is the last ten days of February; and when the land is much heaved up by frost, when rains will settle it down, and give a cover to the seed and insure vegetation. If the ground be dry, hard and compact, I recommend a light single horse harrow, with white-oak teeth, to pass over the field, which will greatly assist the seed in vegetating, and instead of injuring, as many would suppose, greatly benefit your wheat, especially if the roller is made to follow the harrow.

Young clover seldom dies for want of moisture till the grain crop is cut. If the season then be dry, having been sheltered and protected from the heat of the sun sufficiently, then an application of plaster, of from three to four pecks to the acre, will be very timely, and greatly tend to preserve the young clover. For the second application of plaster the next season, I prefer the time when vegetation is fully abroad, and the clover near heading; there is then more vegetable matter for the plaster to act upon. Clover and plaster should be like man and wife, never separated; for without plaster, the crop will be feeble and sickly. Every farmer must feed his land either with manure, or clover and plaster, or it will not feed him; and will withhold

from him that increase which would reward him for his care and labor.

Hoof nor tooth should be put upon clover before it is in full bloom—at any earlier stage is very destructive: and never at any time graze clover in the first year of its growth. I mean, when in bloom the second year, when if the crop be heavy, there will be more clover than the plough can well turn under. It will then not be bad management to permit your stock to derive the benefit. Sheep and hogs injure less than horses and cows. I will suggest to you that all good managers sow clover to improve their lands, and not for the purpose of grazing.

It will readily be perceived by you all, that the old three-shift (or land killing) system must be abandoned; for with less than four shifts, the clover husbandry ought not to be attempted.—Five shifts is much better—but with those who lack surface commensurate with their operating force, by forming grazing lots, of from two to four acres each, according to circumstances, upon lands adapted to grass, and sown with greensward, orchard and herdsgrass—as different grasses mixed, succeed best in forming the strongest and most durable turf to resist the hoof and tooth, under annual grazing. Twelve acres in such lots, well sodded with these grasses, will keep more stock than a common hundred acre grain field: say six lots of two acres each; three are to be under grazing at the same time; when they are eaten down, turn in upon the other three; when they are consumed, the first three will again afford a good bite. These lots can be inclosed by hurdles, sufficient for three lots, by removal as you change your stock, and may be kept up for a series of years, by cutting the turf every three or four years with a couler plough, and an annual dressing of plaster, with a top dressing of manure occasionally. With the aid of such lots, the four-shift system can be made to answer tolerably well. Five-shifts I prefer to a greater number—for experience and observation teach me to believe, that our lands will require a hoe crop to cleanse them every fifth year. If permitted to lie longer, they become foul and wormy, and overrun and infested with sassafras, locust, briars, sorrel, blue thistle, and St. John's wort, &c. requiring great labor in shrubbing and preparing the ground to receive a crop.

Clover hay I consider equal, if not superior, to any other kind of hay, and readily made in fair weather. A very common error in curing it is exposing it too long in the sun, which parches up the leaves and makes the hay poor. It is better to sun less, turn it every hour, so as to make a fresh exposure to the sun through the day. At night, before the dew falls, cock it up in convenient hand stacks, there let it remain two fair days, and it will be cured by its own heat and the air, when it ought to be hauled in, and if any part be not sufficiently cured

to keep, a little exposure upon the yard will make it safe to place away in the hay-house, or in a rick—if the latter, it should be sloped off like the roof of a house, and covered with straw or top fodder—otherwise, the hay will sustain damage by rains. I estimate a quantity of well cured clover hay equal to the like quantity of sheaf oats, especially if cut, as the oats usually are, and ought always to be. Hay, when cut like oats, is less subject to waste—the stock eat it better, and derive additional nutriment, perhaps equal to ten per cent. It is admitted by the best farmers, that oats make a hasty and heavy draft upon land, and that clover is an ameliorating crop, drawing much less from the land, growing and sustaining itself upon atmospheric air and moisture, and known to be the greatest improver in the whole vegetable kingdom. It would then seem to be good economy to lessen the oat crop, and substitute clover hay.

CORN.

There is no doubt that one stalk of corn will grow better by itself than two stalks together; from which it may be inferred that it is best to drill upon lands of every quality. I think otherwise; and I will advise that such lands as will produce twenty bushels, and upwards, to the acre, only should be drilled, excepting hill-side land, regardless of quality, should always be drilled in a horizontal direction, to prevent washing; and leaving your plants asunder in the drill, according to the strength of the soil, from nine inches to two feet and a half. Upon lands a grade lower in tilth, I would plant and cultivate three feet six inches each way, which is as near as can be conveniently ploughed.—And upon lands a grade lower in quality, four feet each way, and in both cases, a single stalk. In planting corn in drills, I advise that the beds be opened deep, and the corn planted as deep in the bed as the surface soil. A higher elevation, near the top of the bed greatly exposes it to want of moisture in dry seasons, and makes it more liable to blow down in stormy weather.—To drill the whole crop of corn, does not suit tobacco growers, as it requires much more hand-hoeing, and at a season when you are busy putting up tobacco hills, and planting tobacco.—Ashes is a most valuable manure for corn; a pint of which put underneath your corn in planting, and a little earth drawn over the ashes before dropping the corn, I believe, upon old exhausted land, will increase the crop one-third in quantity. As to the effect of common manure you are all well informed. Corn land should always be harrowed down before planting, which working is as valuable as ploughing after the corn is up. In the first place, it prepares your land to receive the seed corn, and in the next place it destroys a young crop of grass and

weeds, which will permit you to delay the first ploughing, and consequently the second, without injury to your corn, and enable you to embrace the whole grass-growing season, and make good corn with two ploughings, which if well done, and done in the right time, no more ploughing will be required; the cultivator then, will destroy a young crop of grass, and level down your land in good condition for seeding wheat. From experience, I am of the opinion that seed corn should be saved from the stalks that have produced two ears. Whether it be sex or not, I cannot say, but have observed it is most apt to produce its like, and that likeness increases as you continue the process.

My plan to prevent crows and blackbirds from pulling up the corn, is to soak the seed corn in copperas water, made strong—to remain in it till the grain is somewhat swelled and turned black. It is thus rendered obnoxious to those birds, and vegetation greatly expedited. I consider this method preferable to tarring corn, which, if smeared entirely over the grain, makes it impervious to moisture, which will cause it to rot, instead of sprouting.

A great saving will result in grinding all your stock corn, into fine meal, and feeding it mixed with cut hay, fodder, shucks, or straw; in this form I estimate three quarts equal to four of corn, a saving of twenty-five per cent. to those who have mills; to those who pay ten per cent. toll, a saving of fifteen per cent.; an object well worth your attention, and I hope many of you will test the estimate, fully believing that all who do, will concur with me in opinion; and I will further add, that when fed in this form to old animals that chew corn imperfectly, the saving would be one-half.

TOBACCO.

This is the Major's great crop, and one on which he is completely at home. We know not whether other systems be better; his has certainly been successful. We give his directions entire.

Tobacco being our great market crop, it will be expected that I treat upon the culture and general management of that plant. It being very important to have forward plants, the best selection of suitable ground for your plant beds must be made. New virgin soil is preferable, where to be had, with a southern exposure and the command of water, where practicable.—With the command of water and good fresh horse manure, plants can be raised early, and in despite of the fly, that are, in dry cool seasons, so destructive to our plants. I prefer a close fine soil, with as little sand as possible. Rather than a light puffy soil, I would take black-haw swamps, or white-oak land, which are inclined

to be adhesive and somewhat cold, with shallow soil. I will here remark, that such a soil, with the aid of manure, will produce your plants with better roots than native rich land: such land, when well burned, will divide its particles to great fineness, imbibe and retain more of the stimulus imparted to it by the action of the fire, and retaining its close compact nature, yielding moisture to the roots of the young plants, which in an open light soil, would be evaporated by the sun and drying winds of March, when the plants perish. The next process is burning; for the extent of which, the best rule I can give, is to burn till the ground assumes a red appearance; bearing in mind, that burning late in February, and early in March, must be less than what would be called early burning. The largest coals must all be taken off with a fine rake, then hoe up your bed, not exceeding two inches in depth, and avoid turning over the soil. Now put on horse manure all over your bed, then chop over with the hoes repeatedly, until the ground is reduced sufficiently fine, removing all the roots that can be got out, large and small, taking care not to rupture the substratum by pulling up large roots; mark off your bed, and sow a common table spoonful of tobacco seed for every hundred square yards, dividing your seed, and sowing one-half lengthwise, and the other half crosswise, by which means you will sow your bed more regular; tread, and cover well, and you may expect plants in due season, provided you give another dressing of horse manure, made fine enough to sift through a basket, when your plants are generally square, and at the time when rain is expected. Seasons for setting plants being uncertain, we usually embrace seasons in the month of May, yet I greatly prefer planting from the 1st to the 15th of June. It will come to the knife sooner, and make larger and better tobacco, than if planted in May.—Tobacco requires early and deep working, with a coultter plough first, then with a scoope to make fine earth; and instead of the old mode of ridging down, it is much better to hill it.—At the second working, plough and hill in the same way, and if well done, and at the right time, it scarcely will require a third working.—All the necessary working should be performed by the time your plants are in the second suckers; after that period, a working is often prejudicial. Young grass in that stage of its growth will not injure; indeed, it defends the plants from dirt upon the bottom leaves, and will cause it to ripen of a yellow grey color, and make tobacco of a finer fibre, and more easily cured.—Weeds will injure, by the winds whipping the leaves against them; they should be plucked up by the hands when suckering. I recommend low priming and topping—the shorter the stalk, the richer the tobacco. Take out the bud as soon as practicable, without crippling the bud-

leaves. In my opinion, eight leaves is better to top to, than any greater number, even upon rich lands; it will make richer tobacco, more certain to make itself, and come to the house before frost, than any greater number of leaves. It is often seen upon weak land in dry cool seasons, the two top leaves of ten-leaf topping will not ripen, and they ought to be the two best leaves upon the plant—when, if eight-leaf tobacco had been in the same hills, it would have ripened to perfection, with longer and broader leaves, richer, heavier, and every way better tobacco. Besides, it will come to the knife two weeks sooner, making the crop much more certain, and enable you to seed your tobacco land in wheat that much sooner, which is a very great consideration with every farmer.

A very great and common fault in tobacco makers, is cutting tobacco before it is ripe, by which the loss is great, in quantity and quality. In an address of this kind, there is much difficulty in giving you a criterion, by which to know certainly when it is really ripe—for tobacco often assumes the appearance of ripeness (especially in dry weather,) when it is not ripe. I will, however, say, that when most planters think their tobacco is ripe, if they would delay cutting one week longer, it would then probably be ripe. I will draw your attention to the point of top leaf on the north side of the plants.—From the stalk to the declining part of the leaf, you will see yellow spots, which is the oil separated from the water; from thence to the point, it is green in color, if water only, and ought not to be cut until the oil has reached the point of the leaf. There is as much difference in a chew of good ripe tobacco, compared with a chew of half ripe, as there is in a ripe and half ripe water-melon. Unless the intense heat of the sun forbid it, (such heat as we had in the last month, September,) I always scaffold tobacco. As to the time when it ought to be housed, and fire applied, nothing is more indefinite, depending upon the degree of ripeness, the kind of land on which it grew, the strength of the sun, the state of the air, whether dry and cool, or warm and moist, and whether it ripened of a yellow-grey, or green color; the latter always containing more water, and longer before the water and oil separate. The best guide is this separation, the water having escaped through the mouths of the leaf vessels, where you see the yellow spots of essential oil, and the remaining green and watery part of the leaf approaching that process. A slow fire and weak heat must be applied, say eighty degrees, for if your tobacco gets too yellow, the vessels become so open, the least degree of heat too strong, will force out the oil with the water, kill the staple and cure it up red, the most worthless kind of tobacco that is made, there being no essential oil in it, in which the value of tobacco entirely consists.

That degree of heat ought to be continued, but not increased, one natural day ; after that toasting the tobacco is prepared to bear an increased heat of five degrees more, the next natural day ; the third day, 90 to 95, and the fourth day, 105 to 110 degrees, which ought by that time to cure the leaf perfectly ; but of that fact be certain, by a nice examination above the joist, where the process of curing is the slowest, before you raise heat to 140 or 150 degrees, which is necessary to reduce the stems ; even a greater heat if your tobacco is very large. There is then no danger of injuring your tobacco ; the mouths of all the vessels are sealed up, no oil can escape, and your tobacco will be finer in fibre, closer in texture, and the large stems well reduced, exhibiting a fluted appearance instead of round, a sure proof that all the water is evaporated. Partly cured stems have, and will deceive even good planters, as to the right order to strike down for pressing. It is the moisture retained in the stems, that imparts itself through the leaf, as warm weather approaches. Of the different degrees of heat of which I have spoken much depends upon the tightness of the house, and ought to be regulated by common sense observation.

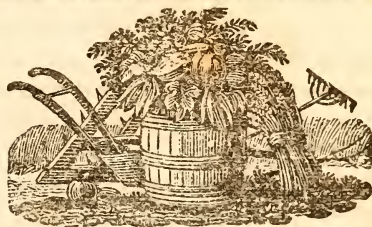
Never crowd your tobacco either upon the scaffold or in the house—ten good plants is as many as ought to be hung upon a stick : if small, go to 12. When arranging in the house to fire, give a space of ten inches between, and it is best to cure in the body of the house, commencing upon the joist ; when the leaf is cured, raise it up in the roof, when $4\frac{1}{2}$ inches space is sufficient—if house-room be scarce, fill the body again with your next cutting—the firing of that will cure the stems of that above. No man can cure as good tobacco in the roof as in the body of a house, a dry heat curing best. The tier next to the fire will be best, if heat be applied right—the steam passing up through so many tiers of tobacco, from which the water is constantly issuing out, before it passes the joist, the steam becomes vapor, and being confined some time before it escapes through the roof, has a deleterious effect, which, if not prevented by a constant and sufficient supply of heat, to dry off the moisture upon the plants, house-burn ensues, when then the leaf perishes on each side of the stem. The curing of tobacco is a nice chemical process ; yet it is generally intrusted to illiterate managers and ignorant negroes, neither knowing the first principles of the science. The constituent parts of tobacco, are wood, water and oil ; and he who dries the wood evaporates the water, and preserves the oil, in the best manner, is the best tobacco curer.

The following sketch is drawn to the life ; few things of the kind have been better done,

Any one who has ever felt a flea (and who has not ?) will recognise the portrait.

DOMESTIC SPORT.

Did you ever catch a flea ?—not you—you don't know how—nor I neither—but they catch us don't they ? When you feel them biting the calf of your leg, just about getting up time you slip your hand down so cautiously, thinking to come over him—you miss where you think he is—give the hair on your legs a smart pull—find you hav'nt got him—swear a little and all the time the vagabond was sitting on your knee, looking on and laughing at you—up you bounce in a fury, determined to murder the villain, and find the flea sitting quietly in the middle of the bed rubbing his claws and pretending not to see you—down goes your open hand—and you catch a handful of sheet—and see him laughing and capering on the pillow, and singing, "You can't come the giraffe over me." "Hit one of your size," &c. This don't provoke you a bit—oh no ! You make one more grab and he is on your arm, and in a Jeffy he is down your sleeve and digging away in the small of your back. Now jam your back against the bed-post, tear an inch or two of your shirt—off comes that garment, and before it's over your head you feel him again on your leg. Give yourself one thundering slap ; say a naughty word—and then give it up quietly, having made up your mind that a flea is invincible.—*Pennant.*



TO THE READER.

A newspaper may be likened to a stage coach—its readers to the passengers—its contributors to the horses, and the editor to the poor devil of a driver.

We have joggled along pleasantly and we hope not unprofitably together and have at last arrived at the end of our journey.

About the first of January, 1842, the same coach with a stronger team will start upon a new route beautifully diversified with hill and dale and altogether very promising in appearance. Those who have acquired confidence in the skill of the driver are respectfully requested to come forward, pay their fare, and book their names for the coming trip.

☞ The vehicle is very roomy and there is no danger of being crowded.

BACK NUMBERS.

In consequence of an accession of numbers that we did not anticipate we were compelled to increase the edition of our later numbers and commence the reprint of our earlier ones. This is a heavy business, and is not yet quite completed; in consequence some of our subscribers are still without the early numbers. A faithful record has been kept of their names, and they may each and every one count upon their being forwarded as soon as they are ready. We probably regret the delay which has deprived them of them more than they do.

ENGRAVINGS.

We are compelled to apologize again for the want of engravings. We know the value of cuts when they are properly selected, and this department has occasioned us more trouble and anxiety than any other of the paper. Strange as it may appear, it is nevertheless true, that in the city of Richmond there is not a single individual who makes a profession of engraving. We are now making arrangements to remedy this defect, and we hope soon to be surpassed by no paper in the Union in the beauty and variety of these embellishments.

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