

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.

VOL. IV.

RICHMOND, AUGUST, 1844.

No. 8.

HEMP.

We have in our office a very beautiful specimen of water-rotted hemp, presented by Mr. W. M. Peyton, of Roanoke. This article has attracted much attention, and we have been so frequently requested to obtain from Mr. Peyton a detailed statement of his mode of cultivating and managing the crop, that we lately made an application to him to that effect; we received the following in reply:

To the Editor of the Southern Planter:

Dear Sir,—In compliance with your request, I send you for re-publication a transcript of the letter addressed to Dr. Armistead on Hemp. I know of nothing material which I can add to it. It embraces the results of my own experience and observation together with that of several western gentlemen, to whom I am indebted for many of the opinions given. Indeed, my system of hemp culture, as here developed, is based upon the plan of a distinguished western farmer whom I met with some years since. Since writing the following letter the price of water-rotted hemp has fallen very materially. The Government not only refuses to stimulate its production by the bonus originally offered, but has in violation of all sound policy, as justice to her own citizens, purchased an *over supply* of Riga hemp, when the domestic article could have been obtained of equal quality and at the price given for the foreign. Water-rotted hemp may now be purchased in Kentucky at one hundred and sixty dollars per ton, and if the western members should succeed in their present plan of compelling the Navy Department to give the preference in its purchases to the domestic article, where there is no disparity in price or quality, it will probably continue for many years to be a profitable branch of agriculture.

The dew-rotted hemp which, as mentioned below, has heretofore commanded in this neighborhood from six to seven cents, has fallen this year to five, which though a very poor price is nevertheless better than the prices of tobacco and wheat.

Yours, respectfully,

W. M. PEYTON.

June 6, 1844.

VOL. IV.—22

To the Editor of the Farmers' Register.

I have sent a paper on the Culture of Hemp, written by Mr. William M. Peyton, of Virginia, which I have no doubt will, if published, be read both with pleasure and profit by many of your numerous subscribers.

Very respectfully,

WM. A. ARMISTEAD.

Plymouth, N. C., March, 1843.

Big Lick, Roanoke, Jan. 26, 1843.

DR. ARMISTEAD:

Dear Sir,—Your communication of the 10th inst. was received by the last mail. I am gratified that my remarks on the Culture of Hemp, in the December number of the Farmers' Register, have been useful to you and will with pleasure, as you desire it, add to your satisfaction by responding to your inquiries.

1. *Time of Sowing Hemp*—Hemp is generally sown in this latitude during the month of April, sometimes in the latter part of March, and not unfrequently in the early part of May. A good deal of course depends upon the season in so changeable a climate as ours; but taking one year with another I should fix upon the middle of April as the most eligible period for committing the seed to the earth.

2. *Mode of Putting in the Crop*.—The ground should, if possible, be ploughed in the fall, that the winter's frosts may reduce the clods perfectly. If this cannot be done, then the same result of complete pulverization must be reached, by repeated deep ploughings, harrowing and rolling with a spike or smooth roller. The necessity for this very particular preparation, you will see explained in my communication above alluded to. When it is thus brought into thorough tilth and levelled by the harrow, it is then sown broadcast exactly as you do wheat, regulating the quantity to the acre by the character of the soil, taking care never to fall below one bushel and a peck, nor to exceed two bushels. When sown, plough it in with single horse "*bull tongues*"—a species of plough between the coulter and shovel, free from the objections and uniting the advantages of each. Follow the ploughs with a roller. The roller is recommended for the final operation, in preference to the harrow, for two reasons; 1st. Because it presses the earth to the seed and promotes their vegetation;

and 2d. Because experience has taught that harrowing inclines the land to bake, if it should be followed by a heavy rain before the hemp comes up, and a crust may thus be formed which would smother many of the tender germs; whilst experience has proven that land pressed together with a roller and then soaked with rain, will crack and crumble as it dries, instead of forming a hard crust.

3. *When Matured and How Saved.*—The crop matures in from twelve to sixteen weeks. The proper time for saving may be easily determined, though exactness in this is not so material as in most crops. When the male stocks which bear the blossoms begin to cast the pollen, (which will be observable whenever the hemp at this stage is disturbed by wind, by a succession of clouds like dust, which rise over the field,) the hemp is in the best state for saving. This last process, whether it is pulled or cut, is a laborious operation and requires strong hands. Whether the one or the other mode is observed, it is necessary, to prevent confusion and tangling that each hand should take a "through," corresponding with the length of the hemp. After it has remained upon the ground a few days for the sap in the stock to dry out, tie it up in small bundles about the size of a small sheaf of wheat, using for this purpose the stunted stalks of hemp, which you will find in abundance throughout the field. Set it up in shocks of two or three dozen bundles each, to remain until it is entirely cured, which you will determine by the dryness of the stock, showing that there is an absence of all sap.

4. *Subsequent Management.*—Some permit it to remain in the shocks, as we left it in the last paragraph, while others put it into stacks to remain till the time for spreading it out to rot.—The latter is certainly the preferable mode, though involving a great deal of additional trouble. It should be spread for rotting on the same ground upon which it grew, about the last of October or first of November. The time required to rot it of course depends upon circumstances of which every intelligent farmer will be a competent judge. Here it ordinarily requires several months; with you it would require less time.—To ascertain when it is sufficiently rotted, have a hand of it broken, and if the wood breaks easily and separates readily from the lint and the lint is strong, your hemp is well watered.—Very slight experience will make you master of this

Your next step is to have the hemp set in shocks, neat and well built, with the tops so bound together as to keep them firm against winds and secure from rain.

The breaking follows; and for this you should embrace all cool and dry days, as they alone are suitable for the operation. Your breaks should be made broad behind, from eighteen to twenty

inches between the slats, narrow in front, and sufficiently heavy to give them steadiness. The legs of the bench to be put on with keys, instead of wedges, that they may be tightened at pleasure. The process of breaking is very simple, but it requires several years practice before a hand is able to do what is esteemed a full day's work.

5. *Raising and Preserving Seed.*—Seed should be planted about the first of April, perhaps in Carolina three or four weeks earlier would be better. Some prefer dibbling it in drills four or five feet apart; others planting in a check the same distance with corn. Both modes answer well. It should be kept clean and well cultivated.

When it has attained a foot in height it should be thinned so as to afford the plants full room to grow freely. When they have attained their growth and the male plants have generally cast their pollen, they should be pulled or cut, leaving only a few of the freshest scattered through the crop. This will give more room for the female plants to branch and spread, which they will continue to do until arrested by excessive droughts or frost. When the pods begin to open and drop the seed, which sometimes precedes, but always follows a keen frost, it should be cut without delay. In the morning, when the dew is on the plant is the most favorable time for this operation. When cut it should be set up in loose, open shocks to dry, which will require ten or twelve days of good weather. As the seed shatters out very easily, great care is necessary in securing them. The best mode I have ever tried, is to have a large tow linen sheet made, spread it at the base of the shock, upset the shock on it and beat the heads off—Have a wagon or cart with a close body at hand to convey the contents of the sheet as it is filled to some place of security. When you have collected it in your barn-floor, beat it with light flails and run it through a fan mill. The seed when clean, should be spread over the floor, and suffered to remain for some days, till they are thoroughly dried, and then put away securely in garners, where the rats, who are as fond of them as old cheese, cannot possibly get at them. If thrown into a heap immediately after they are gathered, they are liable to have their vegetating principle destroyed by heating. Seed carefully managed will sometimes come up the second year; but in nine cases out of ten seed two years old will not vegetate.

General Remarks.—The yield of this crop of course varies like that of every other, with the exception in its favor, that it is subject to fewer disasters. No land, however, should be put in hemp which is not exceedingly rich; with such land the product will be rarely less than six hundred weight to the acre, and may reach ten or twelve. If the crop is cut before the seed forms, it impoverishes less than any crop known.

Where the crop is spread upon the land for watering, the reduction in its fertility is scarcely perceptible in a term of five years. Managed upon the foregoing plan, my crops have averaged me between six and seven cents per pound *at home*, yielding me a much better profit than my tobacco, and costing me infinitely less trouble and labor.

Many in the West and some here, are abandoning the process of dew-rotting and are endeavoring to water-rot after the Russian mode. They are induced to do this from the fact that the Government has offered a price for the article, provided it is made suitable for naval cordage, which if the farmers are successful in the new mode of rotting will make it an exceedingly lucrative business. The process is simple but requires care. I have, however, as yet no experience in it. I am now constructing vats, with the intention of water-rotting my next crop. Should you be inclined to water-rot, and desire my information, I will cheerfully communicate such as I have. The price offered by the Government is \$280 per ton of 2,240 pounds.

Very respectfully,

W. M. PEYTON.

PHILOSOPHY OF WHEAT CULTURE.

Dr. Lee, who is one of the most devoted friends of agriculture in America, read a very able paper before a meeting at the State House in Albany, last winter, upon the cultivation of wheat. He calls to mind that from the analysis of *Sprengel*, the mineral proportion of the plant amounts only to three per cent. of the whole, and that wood ashes present very nearly the same mineral constituents and in the same proportions; whence he infers, that soils the most wanting in these constituents, may be supplied with a sufficient quantity for all wheat bearing purposes by a small dressing of ashes. He goes on to say:

Being but slowly decomposed by the vital action of plants, ashes are an enduring fertilizer when compared with stable manure. Mixed with quick lime, their good effects are more speedily obtained. Lime will render alumina either in the soil or in leached ashes, soluble in water, so that it can enter the minute pores of roots. Clay in the soil is always combined with a large portion of silica; and before it has been exhausted by continual cropping, it holds in combination considerable potash and soda.—Lime, by combining with alumina, the basis of clay, liberates these alkalies and silica, which uniting chemically, form soluble silicates of potash and soda. These also enter into the circulating nourishment of plants, and are decomposed

in the stems of grasses and cereals. The silica goes to make vegetable bone, to keep the plant upright; while the potash and soda go back to the earth, to dissolve, as before, another portion of *sand*, to be also absorbed, and transformed into *bone*. It is in this way that a few ashes, applied to a sandy soil, will enable grass and grain to take up the eighty-one per cent. of flint found in their ashes. Lime will do the same thing on clay soils, for the simple reason that they generally do not lack potash, soda, and magnesia.

"The quantity of lime and ashes to be applied to an acre, will depend entirely on their cost at the place where they are to be used. A few bushels will be of essential service; but a larger dose will be better.

"I come now to speak of the organic elements of the wheat plant, which, as I have already intimated, form ninety-six or ninety-seven per cent. of its substance. Water and its constituents, oxygen and hydrogen, carbon and nitrogen, are the four elementary ingredients of all cultivated plants, beside their minerals. As there is no lack of water or of its elements, oxygen and hydrogen, our attention will be confined to obtaining a full supply of carbon and nitrogen. These are indispensable, and fortunately nature has provided an amount of carbon and nitrogen in the air, if not in the soil, more than equal to all the wants of vegetation. A large portion of the fertilizing elements of vegetable mould, in a rich soil, is carbon, and a small portion is nitrogen; both of which are usually combined with other substances. These important elements are often nearly exhausted in fields which have been unwisely cultivated; and I have paid much attention to the subject of cheap and practicable renovation.

"By the aid of clover and buckwheat dressed with gypsum, ashes, lime, or manure, and ploughed in when in blossom, much can be done in the way of augmenting the rich vegetable mould so desirable, to a certain degree, in all soils. Straw, corn-stalks, leaves of forest trees, and swamp muck, made into compost with lime and ashes, are of great value. Charcoal well pulverized, and saturated with urine, I regard as the cheapest and most useful fertilizer that can be applied to a poor soil, for the production of wheat or almost any other crop.

"The earths contained in charcoal, as the analysis of its ash demonstrates, are identical with the earths found in the wheat plant. Coal contains a very large portion of carbon, and will imbibe from the atmosphere a large quantity of nitrogen in the form of ammonia and its carbonates. Unlike stable manure, the salts of lime, potash, soda and magnesia, it will not waste by premature solution nor by evaporation. On the contrary, it is of incalculable value to mix with the liquid and solid excretions of all

animals, to absorb and fix in a tangible condition those volatile, fertilizing elements, which are so prone to escape beyond our reach.

"When it is recollected that without nitrogen in some form, it is utterly impossible to grow one kernel of good wheat, and that a pint of human urine or four quarts of that of the cow, or one quart of that of the horse fed on grain, contain nitrogen enough to supply sixty lbs. of wheat, we may begin to understand something of the money value of this animal product.—But mind this suggestion. Nothing is sooner lost than the hartshorn in an open smelling-bottle, or a large share of the ammonia in free urine in a warm atmosphere. Charcoal and gypsum will absorb it in large quantities, and give it out at the roots of plants as their wants require. In feeding plants, great judgment should be exercised. At least one-half of the food fed out to them in the shape of stable and barn-yard manure, is entirely lost. It escapes into the air, or is dissolved prematurely, and carried like the potash in water running through a leach, beyond the reach of your hungry, if not starving plants.

"I have just separated a half pound of wheat-flour into its proximate elements of starch and gluten. The gluten I have in my hand. It is nearly identical with animal muscle. It forms from seven to thirty-five per cent. of the bulk of wheat kernels. The more gluten flour contains, the more good bread a given number of pounds will make. A barrel of flour rich in gluten, will make ten per cent. more of bread than one which is nearly all starch. Gluten will bear far more water than starch. The quantity of this meat-forming principle in wheat, depends in a good degree on the quantity of nitrogen in the soil where the wheat is grown."

For the Southern Planter.

RECIPES.

C. T. BOTTS, Esq.

Dear Sir,—Believing it to be a conceded point that the most simple remedies are generally the most efficacious, and that short, *practical* recipes on the curative art will add to the value of the Planter, (of which I am a great admirer,) and that by this means a fund of useful information will be disseminated amongst your readers, which otherwise might remain unknown; I feel disposed to contribute something to your pages in this way. Wishing to further your "ambitious project of making the Southern Planter the most popular agricultural work in the Union."

PILES.—Having suffered as much from this disease as any man living, I feel disposed to communicate through your pages the remedy which gave me relief.

Take about one gallon of Jamestown leaves,

(*Stramonium*,) boil them till the strength is obtained, strain the liquor and add thereto six large table spoonfuls of lard and one of beeswax; boil slowly until nothing remains but the lard and wax; it is then fit for use. Anoint the part affected with this ointment until relief is obtained. In very obstinate cases when there is a continued and painful protuberance of the intestine, it will be necessary to spread the ointment on a soft rag and keep it in place by a T bandage. When the protruded part can be easily returned to its proper position, the ointment should be applied previous to this being done, as it facilitates the operation and acts better. The patient should live on the lightest diet, keep as quiet as possible, and if necessary, take an occasional purge of the mildest kind. Whenever there are symptoms of a return of the complaint, apply the ointment and it will check its farther progress. I have no hesitation in stating, and that from *experience*, that this remedy has no superior, and it needs only to be generally known to be duly appreciated.

This ointment is also valuable for painful sores, wounds, &c.—for *rheumatism*, affecting the joints, rub it in well before the fire, and cover with flannel. For *scalds* and *burns* it will relieve the pain sooner than any thing that I have *ever* seen applied.

In all cases above mentioned I use the ointment plentifully.

I generally prepare the ointment in my yard, as the *stramonium* has a very offensive smell; and the vessel in which it is made, if used for cooking purposes, should be thoroughly cleansed by burning, to avoid any deleterious effects that might otherwise ensue.

WHITLOW.—The application of a plaster made of soft soap and lime, is a sovereign remedy, relieving the pain in a few moments. I have tested this prescription to my satisfaction, and Dr. Ewell observes that, "perhaps this remedy might be useful in cases of the piles."

CORNS.—One thickness of flannel confined over the corn, anointed twice a day with spirits of turpentine, will effect a cure.

FISTULA ON A HORSE.—Take a large double handful or more of wild ratsbane, boil it in chamber ley, and foment the tumor two or three times a day, as hot as the horse can bear without giving pain. If timely applied, it will *soon* effect a cure, and out of many cases, I have yet to witness its failure in the first instance. This application will also cure the poll evil.

Having lost some valuable horses with the *distemper*, (strangles,) I should like to see some efficient remedy for this disease in some future number of the Planter. I will observe that in a recent case I was advised to infuse red pepper in a pint of melted lard, and drench; I did so, and the issue was unusually favorable; but I am not yet prepared to say whether this favora-

able result was owing to the action of the medicine, or that it was a mild type of the disease.

I remain, yours, very respectfully,
W. R. H.

Charlotte, Va., June 1, 1844.

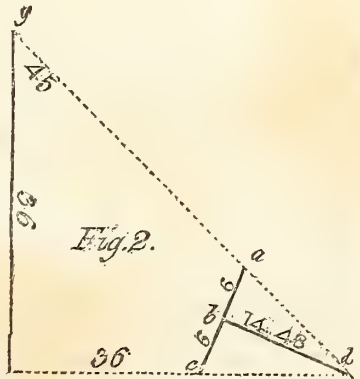
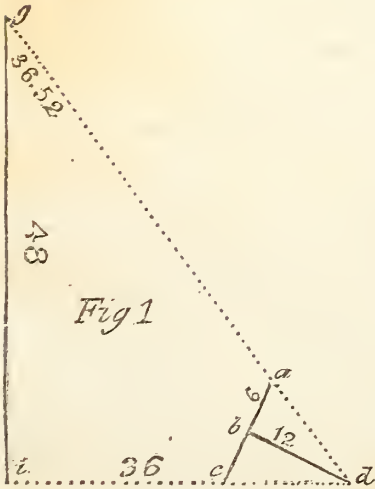
REARING CALVES.

A correspondent of the Albany Cultivator says: "When I first commenced farming I had to pay heavy *crow rates* every year, (as the term was) I never could get my calves through the first winter without losing one or more.— They would grow poor towards spring; their backs would assume the appearance of an arch; the scours would set in, and they would die in despite of all my care and attention. Experience and observation have convinced me that lice were the primary cause of all the difficulty;

and for several years past I have adopted the practice of destroying them in the fall, or forepart of winter, since which time I have not lost a calf. I have tried many remedies, but the best thing I have ever tried is sulphur. I take two parts of lard and one of sulphur, melt the lard, and when nearly cold mix in the sulphur, and rub it thoroughly on the parts most frequented by these troublesome vermin, and they will soon disappear. It sticks close to the hide and hair, and continues to scent until they shed their coat, and prevents any more from getting on them from other animals with which they may chance to come in contact. I keep my calves by themselves, and have a warm shelter for them to go in when they choose, in addition to as much good hay as they can eat. I give them each half a pint of oats or corn meal ground in the ear, night and morning."

For the Southern Planter.

MEASURING CROSS.



Mr. Editor,—Having offered a substitute for the Measuring Cross, which you did me the favor of presenting to your readers, I had determined to say no more upon the subject. But Calvert, a commentator whose notes your readers will, doubtless, be pleased to see monthly, has marked the subject as worthy of special notice, and handed it over to his son. I agree with Calvert in the opinion that it deserves notice. Accuracy is always important in scientific, as well as in moral subjects. It will not be supposed that too much importance is attached to the case in hand, by any who have witnessed the inconvenient and embarrassing hesitation, and misspent labor resulting from the

want of an accurate and easily applied rule to ascertain what length of stock may be obtained from a given tree. The benefit of such rule is, in a great measure, for persons who take much upon trust, till their own observation and sometimes costly experience teach them better. It is well to inquire, Is it so? Is it true? Was it Dr. Franklin who was asked by the Philosophical Society of Paris, (equal to two schoolmasters) Why, if a vessel be filled with water and a large fish put into it, the water would not rise? The answer was not such as might have required an octavo from a sublimated transcendentalist; but simply, Is it so? Let the fact be shown, and then try to account for it. The trial was

made; the water rose, and overflowed, to the astonishment and chagrin of the philosophers. In reference to the rule given by the schoolmasters for ascertaining heights by the measuring cross, I have asked, Is it true? I put it to the test and find it untrue. In opposing it, fearful odds are to be encountered—two schoolmasters—one “a very learned and scientific gentleman,” and the other, of course, a “truly learned” man. Aided by two old acquaintances and companions of my youth, geometry and trigonometry, I shall advance to the contest.

Let it be remembered that the object to be measured is perpendicular. The ground is supposed to be horizontal. The parts $a c$, and $b d$, of the cross, of equal length, “each precisely twelve inches.” Then, according to the rule given, the cross is to be adjusted by “placing the end, d , on your chin, or upper lip, or any other part of the face on a level with the eye.” Never having seen a face so constructed as to admit such arrangement, I would propose to bring the end, d , as near the eye as convenient—the nearer the more accurate the observation.—The observation being taken as directed, the result will be, *not* that the distance “from the spot where you stand to the base of the object is its exact height,” but the distance *more than one-third of the same*, is the exact height. That is, the distance is to the height as three to four.

Now, let unerring trigonometry testify in the case.

Fig. 1.—As $b c$, 6: R. 90 deg. :: $b d$, 12: Tang. 63 deg. 26 min. the angle $b c d$, which taken from 90 deg. leaves the angle $b d c$, 26 deg. 34 min., which doubled, is the angle $a c d$, 53 deg. 08 min., which taken from 90 deg., leaves the angle at g , 36 deg. 52 min. Now let $d i$, the distance from the observer to the base of the object, be 36; and the statement will run thus: As sine of the angle g , 36 deg. 52 min. : $i d$, 36 :: sine of the angle $g d i$, 53 deg. 08 min. : $i g$, 48. Agreeing exactly with geometry. Will you amuse yourself, sir, for a moment in looking over this calculation, that you may assure your readers it is correct?

Spare me a little more space, if it may be done without injury to the Planter and its readers, and I will promise not to obtrude upon them again, unless troubled with rheumatism, some rainy day. I have calculated a cross which may be relied upon to give the exact height of an object by taking the distance from the foot of the observer to the base of the object without any addition or subtraction. See Fig 2.—In this Fig. 2, $i g$, the height of the object, is equal to $d i$, the distance of the observer from its base. In this case, the angle at g is 45 deg., and the angle $i d g$, also 45 deg.; and the angle $b d c$ 22 deg 30 min., which taken from 90 deg. leaves the angle $b c d$ 67 deg. 30 min. Now let $a c$, one part of the cross, be twelve inches. To as-

certain the length of $b d$, the other part, say, as sine of the angle $b d c$, 22 deg. 30 min. is to $b c$, 6, so is the sine of the angle $b c d$, 67 deg. 30 min. to $b d$, 14.48. So it is found that a cross constructed with $a c$, 12 inches, and $b d$, 14.48, say $14\frac{1}{2}$ inches, answers the purpose said by the schoolmasters to be accomplished by one having “each part precisely 12 inches.” Take, if you please, your scale and compasses and try it.

Should the above find place in the Planter, I request Calvert to send it to his son.

I am, Mr. Editor,

Respectfully, yours,

CUMBERLAND.

March 12, 1844.

NOTE.—In the above-instruments no importance should be attached to the particular size. The larger the better till you conflict with convenience. Only be careful to maintain the proportions. In Fig. 1, if each limb were 24 inches it would be better; and in Fig. 2, 24 and 29 inches.

INVALUABLE SALVE.

Take three carrots and grate them; place in a vessel, and cover with lard without salt, if convenient. Boil thoroughly, strain, and add sufficient beeswax to make a paste. This is a most invaluable ointment or salve, for cuts, burns, scalds, or wounds of any kind. Given from long and thorough experience.—*Eds. Saturday Courier.*

For the Southern Planter.

IMPROVEMENT.

Mr. Editor,—I know that the Virginian agriculturist finds it difficult to understand the sort of cultivation which makes it less laborious and expensive to cultivate one acre of land, than two; and, therefore, feel some diffidence in offering the subjoined statement, since I have no disposition to throw away either my time or your own in unproductive labor. I will, however, venture upon it, in the hope that you will introduce it with an elementary treatise so simple that little children may understand it. For example, you may commence by telling them that two dollars are more than one—that two horses at fifty dollars each will cost more than one.—By some simple process of this kind you may perhaps bring their minds to the degree of vigor required to master the grand and—to them, heretofore—incomprehensible proposition, that the cultivation of one acre of land costs less than the cultivation of two.

There is in Stafford county a stout old fellow, J. E., of Stanstead, who though somewhat advanced in life—nay, under ordinary circumstances, would be called an old man—is, nevertheless, in many respects still in the vigor of manhood. His case is a striking one to show that clod-compelling and rearing were in no wise inconsistent one with the other. The field

and the library claim, each a due proportion of his time; and the grateful exercises of the former prepare him for the scarcely less profitable recreations of the latter. In proof that age has not bereft him of his mental power, it needs only to be stated that he has past the *pons assinorum* of the Virginian farmer—mastered the intricate problem above mentioned.

Gentle reader, I know what you would say—that you, your father and grandfather, and all around you and them, have acted upon a different principle—and this you hold to be conclusive against my arithmetic. Remember how long it took the world to understand things quite as simple—and if our Virginian farmers are not more than a century behind the rest of the world, they are doing as well as any body expects of them. But do not, I pray you, fall further behind. Rather gird up your loins, take heart, and strive to diminish the distance between you and others. Pray you, good sirs, read on.

Mr. E. holding the opinion which to you seems so absurd, made the following experiments.

For his plantation, purchased about thirty years ago, he gave a very high price, viz: twenty shillings, or three dollars thirty-three and a third cents, per acre. The average yield was about two and a half barrels of corn. Better land may now be had in that neighborhood for three dollars.

1841.—In the spring he began to bring oyster shells from Fredericksburg, distant about three miles, paying from sixty-two and a half to seventy-five cents per hoghead. These, amounting to twelve hogheads, were burned on the land and scattered upon four acres, marked out for the experiment, the ground having been first deeply ploughed.

1842.—In the spring he laid off the ground for corn, three feet by four, and at the intersections planted the corn in one tea-cupful of slacked ashes and gypsum, mixed in the proportion of four of the former to one of the latter, and covered with a little earth to prevent it from being disturbed by the wind. Every second row was planted with beans; these, however, were planted in the step—not in the hill.

From the four acres were gathered fifty barrels of corn and sixty bushels of beans.

Used in planting, three pecks of corn at the rate of three grains to the hill, were

10 bushels of ground plaster,	\$2 50
40 bushels of ashes at eight cents,	3 20
	<hr/>
	\$5 70

At this rate the cost of planting one bushel of corn was \$7 60.

The ashes and gypsum were intended to stimulate the present crop, leaving the lime to act upon the wheat and clover. In the autumn of the same year a wheat crop was "seeded," which yielded eighteen bushels per acre.

1843.—Four other acres were tried with a similar result so far, and the wheat promises well.

1844.—Encouraged by the success attending the above experiments, Mr. E. is now preparing for a larger essay, viz: twelve acres.

The account may be thus stated for one acre:

DR.	
Lime, (3 hhd. of shells at 68 $\frac{3}{4}$ cts.)	\$2 6 $\frac{1}{4}$
Slacked ashes,	62 $\frac{1}{2}$
Gypsum,	80
Wood and burning the kiln,	3 75
Scattering the lime,	50
Labor of one man and two horses employed one day in ploughing in the lime,	1 50
Checking,	75
Planting,	75
Feeding, &c.	75
Hoing and other cultivation,	1 00
Gathering and housing,	1 50
	<hr/>
	\$13 98 $\frac{3}{4}$

CR.	
By 12 $\frac{1}{2}$ barrels corn, at \$2,	\$25 00
By 30 bushels beans,	30 00
	<hr/>
Amount of sales actually made,	\$55 00

Balance in favor of the experiment, \$41 01 $\frac{1}{4}$

Mr. E. and your humble servant are both modest men and have no desire to see our names in the newspapers, you will, therefore, please become answerable to your readers for our respectability, and place beneath this communication the appropriate signature.

IGNOTUS.

GRASSES.

From a very excellent article in the "New Genesee Farmer" on *Grasses*, we make the following extracts:

In a valuable article on grasses, in the New Genesee Farmer of 1840, Professor Dewey states, that "more than 1,800 species have been described by botanists. More than three hundred are ascribed to North America; and more than two hundred are found in the State of New York." About 150 species are said to be natives of Great Britain; and about 40 kinds are, more or less, cultivated in England, for hay or pasture. In the United States, only five or six kinds are in cultivation at all, and only three or four extensively. In Western New York, thousands of farmers never sow any grass seed except timothy, (*phleum pratense*.) This is avowedly the most nutritious and profitable grass for hay; but it is by no means well adapted for all

purposes, and to all soils. For pastures, especially, it should never be used except mixed with other kinds.

The advantages of sowing a mixture of grasses are not sufficiently understood, or appreciated, in this country. It has been found that a square yard of turf will support, at least, double the number of plants when comprising several species, that it will of only one species. The reasons for this are, first, the different species subsist on somewhat different elements of the soil; and, secondly, having different kinds of roots, some with tap roots running deep, and others fibrous and superficial, the different species derive their sustenance from different parts or strata of the soil.

Sir H. Davy and others, observed, that in the best old natural pastures, in England, there is a mixture of from fifteen to twenty species of grass; and that some one or more of these have their particular season of luxuriance each month, from spring to latest autumn; or, in other words, different species of grass growing on the same piece of land, supply stock with pasturage in different months of the year. It was also observed, that the mixture was different on different kinds of soil. Hence was seen the necessity of a more definite knowledge of the character and habits of grasses, in order to establish a perfect system of culture; and thus was the occasion of the celebrated Worburn experiments, under the patronage of the Duke of Bedford, conducted by G. Sinclair, the particulars of which constitute the admirable standard work on grasses, called "*Hortus Gramineus Woburnensis*."

Orchard Grass, (Dactylis Glomerata).—This grass has been cultivated for many years, in some parts of this country; but is very little known, and cannot be said to be fairly introduced in Western New York. It is not quite equal to timothy, in the nutritive quality of its hay; but it excels that species in other important qualities, especially for pasture. It starts earlier and more rapidly in the spring, continues its growth more uniformly throughout the summer, and affords later pasturage in the fall. All kinds of stock are very fond of it, and it is said that sheep will pass over every other kind to feed on it. The late Col. Powel, of Pennsylvania, after cultivating this grass for ten years, declared it produced more pasturage than any other grass he had seen in America. Sinclair ranks it among the very first, especially for sheep; and its cultivation in England has greatly increased of late years, it having, with timothy, in a measure superseded rye grass, for sowing with clover.

In the Transactions of the New York State Agricultural Society, for 1841, a writer, from Madison county, states, that orchard grass is cultivated by some farmers in that county, and produces excellent hay, and abundance of pas-

turage; starting early in spring, and again after being mown. It also endures drought better, and yields feed later, than any other species; is never killed by the winter, and its roots are easily subdued.

Lucern, or French Clover, (Medicago Sativa).—No plant has been more frequently or more strongly commended to the attention of American farmers, during the past twenty years, than lucern; yet it has never been fairly tried, except in a very few places, although it is found to be well adapted to the climate and soil of most parts of the United States, and of great productiveness and value.

The best soil for lucern is a deep sandy loam, free from wet, and having an open subsoil. Inattention to the kind of soil has been the cause of the failure of numerous experiments with this plant, in Western New York and elsewhere; and these frequent failures have tended to prevent its more general introduction. Another difficulty in the way, and a very serious one with some farmers, is, the land must be very free from weeds, or the crop kept clean by hoeing or weeding, the first year.

This is well illustrated by a writer in the Annapolis Republican, in speaking of a patch of lucern on the farm of William Johnson, Esq., of Somerset county, Maryland. He says, "It consists of about three quarters of an acre; was sown in 1829, and has been cut—this makes the twelfth year. He keeps two horses and three cows; has a full supply of milk and cream, and more butter than he knows what to do with—much more than can be said of many farmers who have five hundred acres of land, without a lot of lucern. This lot has been cut once over this season; and now, before he can get half over again, the horses and cows getting more than they can devour, he will have to make hay of it, to prevent it from getting too old. It comes several weeks before clover—may be cut four or five times—strikes its root very deep, and, therefore, will stand dry weather, and will last, no one knows how long, for this is now a splendid crop, after being cut eleven years; and yet farmers won't sow it!—even Mr. Johnson's neighbors, with a few exceptions, and with his success staring them in the face! I told him, that the common objection urged against it was, that they cannot get it started—that the weeds and grass will smother it the first year. 'The way to manage it,' said he, 'is this: Take a rich lot of ground, on which the water does not lie winter nor summer; cultivate it previously in potatoes; sow your lucern broadcast, the 1st of May, 20 lbs. of seed to the acre, and in July cut it. You may suppose, from the looks of it the first season, that the weeds and grass would overcome it; but don't be alarmed. They die off, and the second year the lucern will survive, almost in immortal vigor.'

"Lucern possesses the remarkable characteristic of being exempt from that quality in clover, and other green meat, (as the English writers call it,) which makes them dangerous to give to horses when in active exercise. In other words, you may feed them as Mr. Johnson does his carriage horses, on lucern instead of dry fodder, or hay, and travel them on it fast or slow, without danger of touching their wind. Every one knows, that this can't be done with clover. But what signify a thousand arguments and illustrations? This, like others, will be read and thrown aside, as a thing that 'tells very well on paper,' but too troublesome to be put in practice!"

Experiments with lucern were commenced in this State, as long ago as 1793 and 1794, by Chancellor Livingston, and one or two others, who published the results of their experiments, and advised its cultivation. Judge Buel, in the *Cultivator* of 1837, says, "We have had considerable experience in raising lucern during the last sixteen years. Until recently, we have found it an available crop, having been enabled to feed six or seven cattle upon an acre of it during the winter months; but for two or three of the last years our efforts to cultivate it have been less successful, on account of the severity of the winters, which has destroyed many of the plants; and the vexatious intrusion of other grasses, particularly of spear-grass." The late John Lowell, of Roxbury, Mass., cultivated lucern for more than twenty years, and warmly advocated its general cultivation. In a letter to the Editor of the *New England Farmer*, in 1838, he says, "The lucern will give, in this State, two good crops the same season in which it is sown. Is there any other grass that will do this? It will endure the severest droughts, when all other grasses fail. It is the favorite grass of the horse and the cow. It will fatten them faster than any other. It will do as much for a horse as an ample supply of grass and four quarts of grain a day, in keeping him in flesh and strength. But many persons have failed in attempts to raise it. And what then? Does it follow that it is not worthy of culture? By no means. If one man uniformly succeeds for fifteen years, there must be some good reason why others do not succeed. Let us try to seek out the causes of their ill success. It is not the climate, because it stands our severest winters unhurt, when clover fails. It stands our severe droughts, when clover dies.

"It is with me the richest treasure. My farm is small, it is true, but it is a grazing farm, and my produce is twenty tons of hay. Surely the experience of such a farmer, for fifteen years, is worth something. I have already cut two crops this season from lucern, sown in April last; and two crops from lucern two years old, and two crops of hay from lucern three years old, at the

rate of three tons to the acre. I expect two crops more from each.

The Editor of the "Farmers' Cabinet" observes on this subject, "No crop can at all compare with lucern for quantity or quality, whether as green food for soiling, or as hay, of the most nutritious and fattening qualities. It is a grand mistake to suppose that a very rich soil is necessary for its growth or well-being; it is rather otherwise, the only *sine qua non* being a very dry subsoil and light surface; upon such a soil the necessary means of support can be given by top-dressings of well composted manure, the chief regard being, that it contain no weeds. It is to be remarked, that hogs pastured on this grass require no other food, being often slaughtered, in fine condition, while feeding on that alone. The culture by drilling is not to be recommended; sow the seed thickly on a clean and well pulverized soil, either in the spring, the summer, or the autumn, without any other crop; the plants will appear in a few days, and, if they are not choked with weeds, will soon overspread the land. An early and frequent cutting, giving them a fresh start over the weeds, and a slight harrowing after every cutting, will enable them to keep it. Truly, it is strange that such an invaluable crop is still confined to patches 'the third of an acre.'"

For the Southern Planter.

WORMS ON CABBAGE.

Mr. Editor,—In your last number you copy from the *Tennessee Agriculturist* a mode of destroying worms on cabbage. I beg leave to offer a remedy for the evil, which I have no doubt will be found quite as effectual, and will give much less trouble.

Take a few sprigs of pennyroyal and place them on each plant; so long as they remain, the insect will cease its depredations. The destruction to this valuable vegetable has become so great from this insect, that I have regretted the remedy was not more generally known.

Yours, very truly,

T. C.

Albemarle, June 3, 1844.

RESTORATION OF WORN-OUT LANDS.

Some time since we published an account of the astonishing improvement of Dr. Noble, of Philadelphia, on a worn-out farm of his in Delaware, which he had bought at fifteen dollars per acre, and so fertilized in a short period as to produce upwards of forty-seven bushels of wheat per acre. In inserting that account we expressed the hope that the Doctor would favor the public with a particular account of the *modus operandi* pursued by him, in order that the agricultural public might be benefited. Some friend of the

Doctor has answered our inquiries in the annexed article, but we regret that he had not been more particular.—*American Farmer*.

From the Farmers' Cabinet.

WORN-OUT LANDS.

In the *American Farmer* of December 27th, appeared an extract from a communication by John Jones, of Wheatland, to the Farmers' Cabinet, in which he makes allusion to the astonishing effects brought about in the renovation of worn-out lands in Delaware, by Dr. Noble, of Philadelphia. On land which cost but fifteen dollars per acre, and produced but five bushels of wheat three years ago, by the application of eight loads of manure, costing (freight included) less than one dollar and fifty cents per load; the Doctor has raised forty-seven bushels of wheat from one acre, and from the remainder rather less, the average being an enormous increase over the produce of former years. The Editor of the *American Farmer* expresses an "intense desire" to learn the secret by which the Doctor has been enabled, at the small expense of less than twelve dollars per acre, to effect such astonishing results.

We would inform him, there is no secret whatever in the method pursued, but such as any farmer might discover for himself, if he would but take the trouble to read some of the numerous works upon the application of Chemistry to Agriculture, lately published. Knowing by chemical analysis or examination, the composition of the grain and straw of wheat, and that of the soil, it was an easy matter to apply those materials which were needed, in order to produce a healthy and vigorous growth. He prescribed for his wheat and soil as he would for a patient, and with equal success; health and strength have been restored to the suffering subject.

Now, as to the sources of the manure which he has made use of, we will say a word; it is in the power of every farmer, near large cities, to procure the materials which are needed to enrich the soil.

The Doctor formed a compost obtained from various sources, consisting of the refuse of tanners', soap boiling establishments, &c., in short, of such animal and vegetable substances as contain soluble salts, or which can be made subservient to the growth of plants. In the selection of these substances he was guided by their composition as made known by chemical analysis. "Give," says the rational agriculturist, "to one plant such substances as are necessary for its development, but spare those which are not requisite for the production of *other* plants which require them."

"An emphatical," or quack system "of agriculture, has administered the same kind of manures to all plants, or where a selection has been

made, it has not been based upon a knowledge of their peculiar composition." The phosphate of soda or lime, the silicate of potash, and sulphate of ammonia, or other salts containing these in other combinations, are necessary for the production of wheat; these have been supplied by the Doctor, and why should we be astonished at the results which have followed their application? He has adopted the *scientific* method of manuring, and if his knowledge of the composition of the soil and wants of the crop was exact, and his conclusions correctly drawn, he could not err in the application of his manures. His is *indeed* a triumph of science over the old fashioned, uncertain, and empirical mode of farming; here is an example worthy the attention of every farmer, and especially should it be considered by those whom prejudice has so blinded that they cannot perceive the vast benefits arising from the judicious application of scientific knowledge to agriculture. It is indeed "creditable to the Doctor as a scientific farmer," we hail him as a benefactor, and desire that he may persevere in that path of usefulness in which he has found both pleasure and profit.

J. S. L.

Philadelphia, Second month 6th, 1844.

SPECIFIC MANURES FOR SPECIFIC PURPOSES.

Many farmers suppose that all manures are similar in their nature, and have the same effect upon plants, whatever may be the structure, design, or use of those plants. Most farmers are unwilling to believe that any thing is manure, except what may be of animal origin. We have long labored to convince them of the fallacy of this idea. As long ago as 1832, in an address delivered before the Kennebec County Agricultural Society, we ventured to hold the following language, which an honest old farmer told us, afterwards, did very well "*for a flight*," but he did not think much of it in practice. "If you want a large, succulent growth of any thing, use animal manures plentifully. If you want to raise pumpkins, squashes, or roots, grass, or any thing which is naturally pulpy and succulent, animal manure is the ingredient necessary. But wheat is by nature very different in its structure and composition from those. You want a comparatively hard, flinty straw, and you want a full and hard, flinty, dry kernel. Lime, alkalies, and such substances, are the proper materials to produce such crops."

We are pleased to find that Mr. J. E. Teschemacher, a practical and scientific horticulturist of Boston, in experimenting upon manures, and especially upon Guano, the manure which is now brought from the coast of Chili, and is exciting much attention—has come to the conclusion that particular manures are adapted to the promotion

of different parts of the plant. That if you wish to grow foliage and stem, certain manures will effect it. If you desire seed only, other kinds must be used in greater quantities than the other. In a very interesting communication, which he has published in the last (April) number of *Hovey's Magazine of Horticulture*, speaking of the action of Guano on the growth of various plants and fruits, he says: "It seems to me highly probable that certain manures are particularly conclusive to a luxuriant growth of stem and foliage, while others are peculiarly so to the production of numerous and well filled seeds."

He then goes on to state, in general terms, that those manures which contain ammonia and alkaline matter, or the *nitrogenous* manures, are chiefly instrumental in producing stem, leaves, &c., while the phosphates of lime, of magnesia, and the sulphureous compounds, all of which exist in those seeds useful to man, are useful as a manure to promote the production of them, and while the former are first necessary to fit the plant with proper and strong organs for developing the seed and for supplying these phosphates, &c., it must be somewhere in the soil or supplied by man, or the seed will not fill out and be so full of the essential amount of the true material. We see this result oftentimes in many crops. We recollect that no longer ago than last year, we listened to the remark which one farmer made respecting the crop of another. Farmer A. had planted a certain piece of land, for ten years in succession, to Indian corn. It was a warm piece of land, and he put on a good dressing of manure from his barn windows. His brother remarked to us, one day, as the corn was coming up, that A. would have a good crop of stalks, "but now mind what I tell you, his ears of corn will have *plaguy long snouts* when he comes to husk them." We had the curiosity to examine the corn in the fall, and sure enough, there were but very few ears filled out over the end—they had "*plaguy long ears.*" Indian corn, we all know, begins to fill at the bottom of the ear, and if there be the proper kind of matter in the soil and plant, to fill the whole ear out, it will continue to fill, kernel after kernel, until it is filled all over the end with sound corn, unless, as is sometimes the case in our latitude, the season is not long enough to allow the filling process to go on until all are filled. This man had, by his good supply of animal manure, always made a good show, and obtained stalks and husks in abundance; but he had robbed the soil of other food, such as phosphates, &c., and did not know that it was necessary to supply them. It is thought that Guano possesses the ingredients necessary for both stem and foliage, and for the seed too, if it be properly applied.

We hope that Mr. T. and others will be enabled to go on with their experiments, and de-

velop facts which are needed, and which will be so valuable to farmers in a practical point of view.

It is probable that the science of *monureology* will become so perfect, that any part of a plant can be so stimulated as to be grown to excess, by the proper application of the right manure. For instance, if you want all leaves, or big flowers, you can have them. If you want all seed, and but little foliage, you can have it, by only knowing a little more of the nature of the plant cultivated, and the material to be applied.

Moine Farmer.

For the Southern Planter.

OX BREAK.

Mr. Botts.—It seems necessary for me to ask you to make a correction relative to the ox break represented in the last number of the *Planter*. From the cut the ox appears to be standing beside the pole, in which position if he walks at all it must be sideways, or pull up the post. His position in the cut should be exactly fronting you, the end of the pole resting on his neck. In this case there will be no necessity for an extra yoke, two holes being bored in the pole for the reception of the bow. An ox to a cider mill, pushing, (not pulling in traces,) will give you an idea of the matter.

P. B. W.

Nottoway, July 5, 1844.

We are much pleased to hear that our friends in *Nottoway* are paying so much attention to the subject of fruit, considering as we do that the same amount of money and labor can in no way procure as much comfort, pleasure and health as that expended in the cultivation of fruit trees. We shall be much obliged to our correspondent for the communication on this subject to which he alludes, as well as for any other his convenience may permit him to afford us.

ENGLISH MODE OF KILLING RATS.

In your valuable paper I have read a plan for the destruction of rats by poison, which is at all times dangerous to have on your premises.—Now I beg to submit a plan which, in my opinion, is much better, and will, if properly attended to, catch them by wholesale, viz: place an old corn bin in a quiet place, where the rats are known to frequent, on some bricks or wood about four inches off the ground; make a hole in the bottom of it to admit them; fit a slate between two grooved strips of wood to pull over the hole by a wire passing out through a small hole in the end of the bin, but the wire must not rest over the hole; then with a string about forty

or fifty yards long fastened to the wire, the trap will be complete. Place in the bin a loose tied faggot or two, to separate them from fighting, and put in three or four red herrings, barley meal, or new malt, &c., and let them have free ingress and egress for a week or so, feeding them every night, and when you are satisfied they have found out the entertainment, go quietly in the dark and pull the slate over the hole, and you will have a good sample of them; they should be destroyed at once, or the bin should be lined with tin.—*Mark Lane (London) Express.*

SUBSOIL PLOUGHING.

We are highly gratified to observe an increased attention to subsoil ploughing, for we consider if it could be generally introduced among us, it would be found one of the greatest agricultural improvements of the age. In vol. 1, page 199, we gave full details of the successful operation of the subsoil plough in England, where it was shown, that by its use, crops may be doubled without adding a particle of fertilizing materials to the land. Two years subsequent experience by the farmers of that country, corroborate the benefits to be derived by the free use of the subsoil plough, for grain as well as root crops. Mr. Tilley recently asserted before the Cornwall Agricultural Association, that he had the past year raised hundreds of roots of mangelwurtzel, weighing twenty-five pounds each; that the crop of these, per acre, as well as carrots and turnips, was at least doubled by subsoil ploughing.

Five years ago we had a piece of land containing two and a quarter acres of a hard clay soil, which, with the best management we could bestow upon it, yielded less than one hundred and fifty bushels of potatoes to the acre, and four hundred of sugar beet—while parsnips, carrots, or any long roots, it would scarcely grow. We had just heard of Mr. Smith's subsoil plough in Scotland, and determined upon an experiment. We had no plough of this description, nor could we then obtain one; we accordingly took the mouldboard off from a large, strong road plough, and used the point of the share alone for subsoiling. We ploughed the land in the fall of the year, by taking a common plough and one yoke of cattle, and turning over a surface furrow six inches deep. We then followed directly after this in the same furrow, with three yoke of cattle attached to the road plough, stirring the soil eight inches deeper, making fourteen in all. This we then bountifully limed, and the next spring as bountifully manured and planted it with roots, and the following autumn obtained over one thousand one hundred bushels of sugar beet to the acre from it, and other crops in proportion.

Subsoil ploughs may now be had in this city, of excellent pattern and strongly constructed,

from ten to fifteen dollars each, which will stir the earth from twelve to eighteen inches deep, requiring from two to five yoke of cattle to move them, according to the nature of the soil, and the depth required to plough.—*American Agriculturist.*

For the Southern Planter.

THE BARBERRY BUSH.

"Woodman, spare that tree."

Mr. Editor,—While the subject as well as the weather is warm, one of your readers asks room to say to your Louisa correspondent and all others concerned, that the barberry is innocent of the charge of rust in the wheat. If rust is caused by an extrinsic emanation or poison from the suspected bush, this poison must be of its own kind and specific, and where the barberry was absent the mischief could not occur, but it does occur where the bush is unknown, and, therefore, the bush and the rust do not stand in the relation charged. It, being considered medicinal, is generally planted in gardens near which the land is more fertile than elsewhere on almost every Virginia farm. The wheat sown near is ranker and, therefore, more favorable to the invasion of rust, whether it be a parasitic production like smut or is a rupture of the vascular system, as argued by some. A number of observations satisfies the writer that in either case a certain degree of heat approaching to that of our summer solstice occurring at a particular stage of growth, is necessary to its development. He has seen under the shade of a tree the straw bright at harvest when the rest of the field was dark brown. He has this year reaped a lot of red May wheat free from rust, whilst on adjoining land a late wheat was much injured. That we in Virginia cannot with probable success, raise the late wheats seems generally agreed on, because of its exposure to this evil.

Could we sow our late wheats the last of August, as in the days of our ancestors, and avoid the ravages of the fly by grazing with sheep till the first of March, our harvest would probably be so hastened as to avoid the rust and make heavier crops than from any forward kinds.

GRAYBEARD.

July 2, 1844.

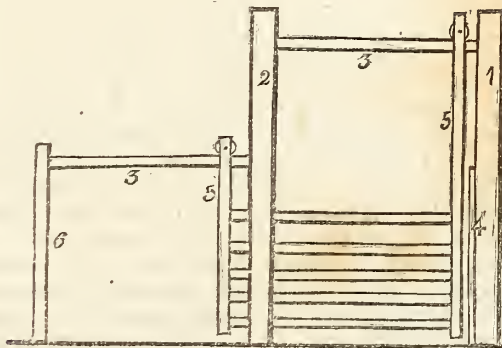
CONTROLLING THE HORSE.

The study of the temper, disposition, and controlling motives of the horse or the ox, is akin to that of mental philosophy, and when properly understood, assists in the training of animals, as it does in the education of children and youth. A man once owned a fine family horse which had every desirable quality except that he would take fright and run at the sight or noise of a

drum. This rendered him unsafe; but the owner, loth to part with him, endeavored to break him of this infirmity. For this purpose, he hired a celebrated rider, who mounted him well armed with spurs and whip, while another was employed to beat a drum. The horse, as usual, was unmanageable, and the rider rowelled his sides with his spurs, and plied the lash most unsparingly. But it was all in vain, all rendered the animal more ferocious, until he became frantic with fear; the owner abandoned the hope of ever rendering him a safe family horse, and sold him at a reduced price. The purchaser, however, proved himself more of a philosopher. He procured a large drum, placed it on end, and covered the top with oats. He then led the horse towards it. The animal, at first, snorted and whirled around with great fury, but by gentle approaches, he was at last brought so near, as to snuff the oats. He then cautiously advanced, often retreating, but finally became bold enough to nibble a little; and after many snuffings and whirlings, he ate the whole. The next day the process was repeated with comparatively little trouble; and it was renewed from day to day until the horse grew fond of a drum, and would run towards it whenever he heard it beat.—*Pro. Olmstead.*

For the Southern Planter.

G A T E .



Mr. Editor,—I have seen many plans for gates in the Southern Planter but I have six made from models that are in the May and June numbers of the Cultivator for 1842, which I prefer to any I have ever yet seen. They are on the rail road plan, making a *firm and lasting gate, with less expense than any I have ever seen*, and I am henceforth and forever done with the old-fashioned hinge gate. As your object is improvement, the cuts transferred from the Cultivator to the Southern Planter might benefit your numerous readers.

W. R. H.

Charlotte, June 1, 1844.

In accordance with the suggestion of our correspondent, we have transferred the cut from the Cultivator to our columns. We have heard others speak highly of this plan of gate, and we have no doubt it is in some respects superior to the old swing gate. The only objection we see to it, is the upper rail, which might interfere with the passage of a loaded waggon;

though this inconvenience is avoided in a subsequent plan in which the gate runs back in grooves; but where the difficulty alluded to was not regarded, we would prefer the first plan.

The following is the description that accompanies the cut:

Messrs. Gaylord & Tucker,—Accompanying this is a rough sketch of my plan for a gate. You will at once see that it is on the rail road principle; and for that reason I think that it will go ahead. I think that this gate has many advantages over any that I have noticed. It makes a firm and lasting gate, with less expense than any that I have seen. It saves at least half an hour shovelling snow every morning after a snow storm; it plays easily, and is not liable to get out of order. However, the gate will show for itself, and I will occupy no more of your invaluable paper, save a description.

1, gate post 4 by 6—2, do., with a mortise, the same as the height of the gate—3, 3, rails

for the gate to roll upon—4, two slats nailed on to post, four inches apart inside, to keep the gate from being pushed either in or out when shut—5, 5, upright posts to gate, 3 by 4, with a mortise in the upper end long enough to admit the rail and a cast iron or hard wood pulley 4 or 5 inches in diameter, upon which the gate hangs—6, in a post set beside the fence merely for the purpose of mortising the rail into. The dimensions I have not given you, as they may be built of any size required. M.

Onondaga Co., Dec. 9, 1841.

USES OF CHARCOAL.

A fortnight ago we called the attention to the increasing evidence as to the value of charcoal as an agent of cultivation, and we alluded to the employment of it in the pine growing at Bicton. We have since received a letter from Mr. Barnes, in which he entirely confirms the statement we then made. "Charcoal," he says, "is the most astonishing article to make use of for all purposes of cultivation, and especially for plants under artificial treatment. I judge from many years experience in its use. What you say respecting my employing it largely among my pine soil is true. It consists of nothing but charcoal and loam, without a particle of manure of any sort. Every plant under my care has some charcoal used about it. I never yet saw the plant that did not delight in it, and to heaths it is most especially acceptable." It seems to us that opinions thus strongly expressed by one of the best gardeners in the country, must carry conviction to the most skeptical. However, we may as well mention a few other facts before we leave the question to the experimental proof to which it is now certain to be subjected all over the country. The other day Mr. Stewart, gardener at Stradsett Hall, exhibited to the Horticultural Society, some cucumbers grown in equal parts of loam and charcoal, without any manure. No stimulant could have given better fruit, so far as health was concerned. The author of the "Rural Economy of the Midland Counties," states that the fragments of charcoal left by the charcoal burners have been found of great benefit to land. He reports them to be, in his time, in esteem as a manure for turnips, and for fining grass land. The well known operation of paring and burning has been supposed to prove so beneficial in consequence of its removing insects, and destroying the cohesiveness of stiff clays. The latter is no doubt, its effect in part; but we entertain no doubt that the charcoal formed from the roots of grass and other plants is also of much importance in the operation. Try, for example, brick dust,—which is burnt clay without charcoal,—and the burnt clods of the fields, containing charcoal against each other, and the distinction will soon be seen;

yet so far as mechanical alteration of the texture of the soil is of value, they are not in a very different state. Then listen to what is stated by Mr. Rivers in the last edition of his "Rose Amateurs' Guide:"—"I have used," he says, "with much success (for roses in pots,) turf roasted on a sheet of iron placed in temporary brick work, under which a moderate fire has been kept: about one hour's roasting is sufficient. This chars the under side, and acts most beneficially."—(P. 192.) We have reason to know that this is a most important fact in the management of roses in pots; and let the reader consider how entirely it confirms all that we have said on the subject. When we last mentioned this matter we quoted the experiments of Mr. Rigg, against the assertions of other chemists, to prove that charcoal will form carbonic acid with the oxygen of the atmosphere, under ordinary circumstances. We have since met with a passage in De Candolle's "Physiology," which shows that we do not stand alone in our belief that charcoal does, even in the air, form gaseous combinations of some sort or other, and so furnishes food to plants, independently of the matters it may be able to condense within its pores. "Count Rumford," says M. De Candolle, "has proved by direct experiment, that charcoal, so long regarded as one of the most fixed of known substances, is capable of combining with oxygen, and forming with it carbonic acid, at a temperature very far below that at which it burns perceptibly. This slow combination of charcoal with oxygen explains why those places in the woods where the charcoal burners have been at work, although at first sterile, became fertile in proportion as the charcoal combines with the oxygen of the atmosphere to form carbonic acid, which dissolves in the surrounding water." We may add that the quality of charcoal is much improved by steeping it in liquid manure; and that the lighter and more spongy it is, the better for the purposes of the cultivator.—*English paper.*

For the Southern Planter.

TOBACCO PREMIUMS.

Premiums, on tobacco, will be awarded in 1845, at the warehouses in Farmville, on hogsheads exhibited from the growing crop. Farther particulars will hereafter be announced by the Inspectors. It is deemed proper to give planters who may wish to compete for the prize this early notice. P****.

Farmville, July 10, 1844.

MARLING.

We have received from our correspondent X. a translation from the French upon the subject

of marling. The term marl is a very general one, and is not used in Europe to designate exactly what is meant by it in this country—some of the observations of the French author are, therefore, inapplicable to the subject as we understand it. We would greatly prefer the original article to which our correspondent alludes and which his experience in marling would render very valuable to our readers.

PRODUCTIVE FARMS.

To a person not familiarly acquainted with the history and statistics of English husbandry, the extreme productiveness of the farms of that country, will appear incredible. Nearly nine-tenths of the cultivated land in Great Britain and Ireland, are rented to tenants, who pay, usually, from four to five pounds sterling per acre annual rent. Where is the farmer, in this country, who could live under such a burden? Here, a farm comprising a hundred acres, is often rented for one hundred dollars, and even at this rate, the tenant has a hard task. The cultivation, even where there are a large number of acres in grass, will little more than pay the rent and taxes; but in England the result is widely different. The tenant who there pays five pounds sterling, per acre, annual rent, and finds all appliances, obtains not only a comfortable living, but in many cases wealth, from the prosecution of a business which here, with like burdens, would doom him to want and misery.

In 1811, Irwin estimated the produce of one English farm of 890 acres, at £8,578,—or \$38,000! The quantity of manure applied was 13,746 one-horse cart loads in one year, and 10,250 the next! Now, admitting the rent of this farm to be \$12 per acre, and the cost of manure and its application \$12 more; and if to this sum we add, for interest, or expenses, taxes, and the various contingent expenses of cultivation, &c. \$12 more, we shall find upon striking the balance, that there will remain a profit of \$10 the acre, amounting in the gross aggregate, to the sum of \$10,000 clear gain to the tenant in a single year!

In the vicinity of London, a hay farm comprising 160 acres, was rented. The rental in this instance, was \$12 per acre, amounting in the whole to \$1,920 per year. A very heavy expenditure was required for manure—probably as much as many a New England farmer would have been willing to give for the land, and yet the tenant succeeded, and has since become wealthy, and with no other income than the produce of his farm.

In Ireland, a poor tenant hired an acre of land, erected his cottage, purchased manure and farming tools, and the first season cleared all expenses

and had a balance of £8 left. And yet that Irish peasant, in addition to the expenses and outlays above enumerated, had a church tax to pay, and to be at the expense of purchasing his own seed, and maintaining a family of four besides himself and wife. The frugality of the Irish peasantry is proverbial. But there was something more than mere frugality at the bottom of this man's success. There was *thorough cultivation*—a thing which in New England may be said to be wholly unknown. This is the mystery, and the only one. That Irish peasant, with like expenses, would have starved here on forty acres, with our cultivation.—*Conn. Courant.*

For the Southern Planter.

CONTRIBUTIONS FROM A SOUTHERN PLANTER.

NO. II.

June 29, 1844.

Allow me, Mr. Editor, to say a few words about and to

OVERSEERS.

I design confining my remarks to an evil which "exists, is increasing, and should be diminished" in Virginia. I refer to the custom of employing overseers, long before their services are required,—in some communities, six months before the commencement of the year. This is an evil, I maintain, which operates detrimentally to the farmer and also to the *good* overseers.—Formerly, engagements, between employers and overseers, were made, certainly, not earlier than October. But in "this age of improvement" in some counties, the June court days, by common consent, are the periods of making these contracts: and if this spirit of "improvement" continues to progress it will be thought necessary, at no distant day, to make engagements in January for the year commencing the *next* January.

The following example will illustrate one of the chief evils of the custom referred to. The farmer employs an overseer who commences in January: if he is a *good* overseer, his services will be highly valued by his employer; or the other hand, if he is an unfaithful and indifferent agent, the blue thistle is far more desirable on the plantation. If of the former character, his employer will desire to retain him. The proof of his merits is best shown by the manner in which he discharges his duties while in your employment. But before he has been your agent for a period of six months—before he has pitched his crop, or at least before he has shown an ability to manage a crop—before you have had an opportunity of becoming acquainted with his qualifications, he wants employment for the next year. And the maintenance of himself and little family perhaps makes it necessary for him to secure employment for the next year.

Delay may deprive him of the means of support. If you employ him, you run the risk (often woefully realised) of being afflicted for eighteen months with a worthless overseer.

The evil is not confined to the employer.— Here, let me call the attention of the really good overseers of the country, who form one of the most useful classes of every community, to one fact. A consequence of this custom is, that the overseer, whose merits entitle him to praise and to good wages, and the overseer, who is not entitled to trust and confidence, both *stand on the same footing*; the proof of their respective merits by the month of June may be the same, from favorable seasons or other causes. So far as condition of the crops is concerned they occupy precisely the same situation; they show equal claims to patronage. Here is a man who is industrious, *honest*, in the ancient meaning of that word, really desirous to advance the interests of his employer; he has one of the apostolic requisites of a good wife, "a keeper at home;" in a word, he is worth a whole regiment of such as the cunning competitor for his place. There is a fellow just come to the neighborhood, who knows that his conduct for the first few months may determine his destiny for the next eighteen; he "acts well his part" for six months and is in more senses than one a *promising* (never fulfilling) young man. With all the appearance of merit, he *may be* wholly unqualified for his responsible station. There are tricks in every trade: he either retains his place or undermines a worthier man, and for eighteen months he is quarter'd on you. He will keep just within the letter of your contract: in his employer's presence his effort is to please: let his back be turned, he is soon "monarch of all he surveys." His cow, his riding horse, (one of *your* best,) his fowls, live on the fat of the land. Should you return home suddenly, or should you visit a farm on which you have placed him alone, ten to one, you will not find him: he is at a neighborhood village or grog-shop: he has discovered that he was "cut out" for a politician, and becomes the warm advocate of some hunter of place, some "angler after fame," some little-great man, who wants office, and tells us that we are the wisest and best of the human race, especially the aforesaid overseer. He is one of the patrol and visits every body's house but his employer's, and believes that there is no luxury equal to finding a negro without a "pass." With your negroes he "wages perpetual warfare;" and Cuff (if he is a home-staying body,) and "O'seer" are any thing but "natural allies." Such a nuisance cannot well be fully described by the English language. You may have been led to employ such an one to the exclusion of another who would have made you a faithful agent, whose crop in June may have presented about the same appearance as the rival appli-

cant for your favor. After some two or three such misfortunes, having enjoyed a small annuity from the farm of which you have nominally been the owner and from which two or three indifferent overseers have drawn all the profits, you either sell out or make up your mind that the whole race of overseers are worthless. While it is not pretended that the fact of the many cases of imposition similar to the one referred to is wholly attributable to the custom referred to, yet it is evident that the evils to the employer and to the really good overseers of the country, above mentioned, often originate in the cause which I have stated; and I maintain, that if November, after the crop of the year is gathered, was the period of making contracts between overseers and employers, it is fair to presume that we should not be so liable to be deceived.

The remedy for the evil is the removal of the *cause*. Let any dozen farmers co-operate, or let this subject be considered by our Clubs and Societies; and let it be even among a few agreed that overseers shall not be employed till October. The evil will be removed: a greater stimulus to exertion to please will be held up before the young overseers, at least, of the country; the employer and overseers will here have an opportunity of better knowing each other, and other manifest benefits will result from such a change of a bad custom.

It is, Mr. Editor, among the most auspicious signs of the times that the overseers of the country are beginning to be readers of agricultural journals. I am happy to know that such is the fact with regard to your valuable Planter. This spirit should be encouraged. The overseers of Virginia stand in a most responsible position; and that correspondent of yours who will address your readers a series of *practical* essays on the duties arising from the relation of employers and overseers will accomplish good. Could you devise some method of getting the overseers, whose experience and age entitle their opinions to weight, to become correspondents of the Planter, much valuable matter would thus be laid before the public.

We have heard complaints elsewhere of the inconvenience arising from the custom of early engagements of overseers, and we know that one Agricultural Club has resolved by unanimous resolution, that the members would not hereafter contract with their overseers for the next year before the first day of the November county court preceding. One great advantage derived from these Clubs, is the result effected by the force of united co-operation.

July 9, 1844.

TANNER'S BARK.

Mr. F., of P. E., had a very large heap of

tanner's bark from his vats. He set fire to it when dry, and it continued to burn until consumed, (for some weeks, I think,) and he has now a large quantity of ashes, making, thus, a most excellent manure, which may be transported much easier than the bark. He has applied the ashes to grass, which grew rapidly, and he has no doubt of the great value of his ash heap. Our tanners might profit by the example. "For stiff, cold and heavy lands, a compost of one part of farm yard manure to three or four of tanner's spent bark is better than even stable manure." The ashes, however, may be mixed in the compost in smaller quantities.

PLUM TREES.

Plant them in the middle of walks or paved yards, if you wish to avoid many of the ills, that plums are heir to.

GAPES IN CHICKENS.

Mrs. E. a "gude housewife" and great chickenarian(!), to whom I read the communication on this subject in the July number of the Planter, adds the following cure of gapes:—"Put the chicks in a covered basket and hold the basket over a pretty strong tobacco smoke, and smoke them till they get *drunk enough* to cease crying. But avoid the error committed by a good lady, who followed the latter part of the prescription *too* literally. She waited till the chicks had ceased crying, but waited too long: they had died. Young turkeys are benefited by the same application.

A GOOD BLACK DYE.

For two yards of cloth take 5 lbs. of logwood, 3 oz. of blue vitriol; boil the logwood, say eight or ten hours, strain it, add the vitriol and when dissolved, put in the cloth and boil gently one hour, then put into cold water.

AN EXPERIMENT IN DRAINING.

I had a very wet, boggy piece of land which had been so overrun for years with a small branch that I almost despaired of bringing it into successful cultivation. This year I had a ditch dug on the lowest part of the land sufficient to carry the branch: this, however, did not drain it. My overseer seemed very desirous to add it to an adjoining lot of tobacco, and being a skilful and industrious (and young) manager, I told him to "try his hand," doubting his success. He, however, went to work and has now a superior lot of tobacco. The following is his plan: He turned it up very deep (this, by the way, should have been done early in the fall,) with a four horse plough; laid off the land in high beds about twenty-five to thirty feet wide; the furrows on each side of the bed being parallel to the ditch which carried the branch, and deep and well cleaned: he then run the ploughs, in

making the rows for the tobacco hills, *across these wide beds*, and thus had small cross-drains, made by the tobacco rows, running perpendicularly to the deep furrows. The land was thus completely drained. The crop of tobacco will, no doubt, more than doubly compensate for the comparatively small extra labor. Let me here say, Mr. Editor, that this experiment will, no doubt, appear to many of your readers as unimportant, and as taking up too much of your valuable columns. Strike out or amend as you think best. It being an *actual* experiment I thought it might add a mite to the increasing mass of testimony in favor of *thorough draining*. The fact, however, which I designed, when I took up my pen, to direct your attention, was, that the *cross* drains, formed by the tobacco rows, were most important in the experiment. Most planters run their rows parallel to the main furrows: the subsequent cultivation with ploughs is thus easier. In wet lands, old meadows or flats, for instance, this cross running of rows is preferable.

CONTRIBUTORS TO THE SOUTHERN PLANTER.

You were pleased, Mr. Editor, to approve of my making calls on several gentlemen in my last number to come out from their hiding places and to give their brother farmers the benefit of their "lights." I trust that your second to the call may bring them among your contributors. They, and others, whom I could name, can and ought to comply with your request. They are, I know, *patriots*. I again appeal to such to "come up to your help." And what has become of your former correspondent Dr. N. A. Venable, of Lunenburg? I read with much pleasure and profit his sensible essays on the tobacco culture. I hope we shall hear from him again.

Give me leave to add, in conclusion, that if these and many other able gentlemen in Virginia, who can do so, will respond to my humble and your more weighty appeals, no one will more willingly give place to them, or more gladly "sit at their feet and learn" than your friend and

Obedient servant,

SOUTH SIDE.

TIME OF CUTTING WHEAT.

We have published various opinions upon the proper time for cutting wheat. Two or three years ago, Mr. Hannam, of England, published some statements of the advantageous result of cutting wheat in the milk or dough state. This led to many experiments, some of which were made in this State and reported to us. The general result was far from favorable to the experiment. The grain shrunk and shrivelled and

was totally unfit for market. But we are now inclined to think that in most of these cases the time recommended was misunderstood and the wheat was cut too early. At any rate, subsequent experiments seem to determine that wheat should be cut before the berry becomes hard and fully matured. The Editor of the *Agriculturist* says, "When the berry of any kind of grain has well filled and just begun to glaze, so that passing the thumb nail over it leaves a slight indenture, is the best time for cutting." Upon this subject the Editor of the *Prairie Farmer* says:

"There is a growing conviction, among farmers, that it is advisable to cut wheat much earlier than has been usually the practice. We have heretofore published some experiments, which established the fact conclusively, that wheat which is cut while in the milk, is much heavier and makes better flour than that which is cut when fully ripe. These experiments we advert to with the more confidence, as they are corroborated by a great number of experiments made by others, with the same results.

"Nor are the incidental advantages of early cutting to be overlooked. A farmer may be able by early cutting, frequently to avoid the calamity of rust, which is often so destructive in large sections of country. Loss by shelling is almost wholly avoided, and the straw if used for feeding cattle, is much enhanced in value.

"The grain should not be cut, however, as soon as it is in milk, as in such case it will shrink; but, while the milk can still be expressed between the thumb and finger; and when the straw has turned yellow a few inches above the roots. At this time, the milk of the grain will be in the condition of starch or glue. After this, if the grain be allowed to stand, the straw will soon begin to draw upon the kernel for the nourishment which properly belongs to the latter.—It was in this condition that the wheat of Mr. Pell, of New York, was cut last season, which weighed sixty-five pounds to the bushel; and of which he produced a little more than seventy-eight bushels to the acre.

"We have been told, however, by an experienced farmer, that this mode of cutting does not answer so well for wheat which is intended for seed. This should be allowed, as he informed us, to ripen fully upon the ground.

"As there will probably be an immense harvest this season, it is of additional interest to the farmer to know, that he can proceed to the business earlier than he has been accustomed to, not only without loss, but with decided profit."

We would be obliged to any of our own correspondents for additional information upon this interesting subject.

From the Albany Cultivator.

TO PRESERVE TOMATOES.

Messrs. Editors,—As I am very fond of tomatoes, and have a way of preserving them to use, when the season for them is over, a way which I have never seen proposed, although others may have heard of it, I have concluded to send it to you, that you may publish it if you think proper:

Dip the ripe tomatoes in scalding water, peel them, and divide them into two, or if very thick through, three slices, lay them on plates and put them into the oven after the bread is drawn; if a good oven, by the time it is cool, or in forty-eight hours, they will be perfectly dried; put them into paper bags and keep in a dry place; when wanted for use, dip them into cold water and lay them on a dish to swell, and in a mince or stew, they are almost equal to the fresh fruit. If you wish to make tomato sauce, add a little water to cook them in. They are very good to eat out of hand in the dry state.

A FEMALE READER.

Brooklyn, May 6, 1844.

TOBACCO.

The question has been often asked, is tobacco an exhausting crop, and the answer has been generally of an affirmative character. It is undoubtedly true that improvement seldom goes hand in hand with the cultivation of tobacco, and it is true, as a general rule, that the most exhausted lands are those which have been devoted to its cultivation. But we had been inclined to attribute these facts rather to the constant attention required by the culture of tobacco, whereby the planter is deprived of any time for improvement than to any peculiarly exhausting qualities in the plant itself. But we have been looking over a series of essays published in the *American Agriculturist* on this subject from the pen of Dr. Gardner, Lecturer on Agricultural Chemistry in New York, and he states, that tobacco, in the few months of its growth, consumes 170 lbs. of mineral matter to the acre, which is much more than wheat or any other grain carries off in the eight or nine months of its growth. Dr. Gardner's theory is, that mineral salts and ammonia are necessary to the growth of plants—that the salts are found more or less in every earth, and that some plants, as particular forest trees, the natural grasses, clover, &c. are capable of drawing all their gaseous food from the air; whilst others, which are peculiarly rich in nitre and ammonia, as tobacco,

depend chiefly for their supply upon the decay of vegetable matter. This vegetable matter is not only useful in yielding an additional supply of nitrogen, but it also furnishes an accumulated quantity of carbonic acid. The mineral salts which exist in the earth, and which we have said were necessary to the growth of the plant, can only be used when they are *dissolved*, and they are only soluble in carbonic acid. But the carbonic acid gas of the atmosphere is not absorbed fast enough to dissolve the quantity of the mineral salts in the earth required by the speedy growth of the tobacco plant. Hence, a large proportion of vegetable matter, or manure, will be consumed in this process.

But Dr. Gardner thinks that there is another mode of obtaining a sufficiency of these solvent substances besides the addition of vegetable matter to the soil, viz: by increasing the porosity of the soil. This may be effected by pulverizing or by paring or burning, but we will let the Doctor speak for himself:

"1. *To Pulverize the Soil.*—When it is adhesive and wanting in porosity, it must be rendered fine. This may be accomplished by many means, in different localities. If lime is abundant, and the land a stiff clay, it should be used freely, drainage may be necessary, admixture with vegetable matter, as leaves, sawdust, muck, fallowing crops, burning clay, repeated stirring, rolling, &c.

"By pulverizing the soil two important points are attained: first, the greater absorption of gaseous matter, dew, and fluids from the air; and secondly, the means of dissolving saline matters, are increased. Beside these advantages, the plant is enabled to draw food from a much greater extent, and the improvement, if properly made, is a permanent advantage to the land.

"The absorption of gaseous matter is increased to an extent directly proportional to the fineness, and looseness of the soil. This requisite to fertility is certainly appreciated by many farmers, but there are none who are fully alive to its capabilities. So much may be accomplished in agriculture by attending to this one point that it may be made the first, and only principle of successful farming, provided the mineral composition of the earth is suitable. Every one is now aware that plants will grow and flourish in charcoal powder watered with rain water, sufficient saline matter being present. Yet the charcoal, properly so called, independently of the bodies which adhere to it, furnishes no part of the food of plants, not so much as the clay of the field. It acts in consequence of its extraordinary porosity in absorbing and holding a suffi-

cient amount of the carbonic acid, and ammonia of the air, to answer the necessities of the most luxuriant vegetation. Its action is undiminished for years so long as it is in contact with air.—There may be a slight difference in the proportions of gaseous matters which clay absorbs, when compared with charcoal, but leaving that out of consideration, it may be proved that if the clay of the surface-soil could be reduced to the same condition of porosity, it would perform the very same office as charcoal, and constitute, in itself a sufficient material whereon the most luxuriant plants might be raised, provided, as before, the necessary saline matters were present. Common clay cannot be brought into this state of maximum porosity by mechanical means, for it differs from charcoal in its intense cohesion for water; but when it has been burned, this point of difference is destroyed and the two now resemble one another very closely in this physical property, and are equally known, as well as coal cinders which act in the same way, as fertilizing agents.

"The doctrine advanced is not new, the indefatigable Jethro Tull, as the result of mere experience, wrote on it, and secured among other illustrious disciples the name of Duhamel. Liebig applying the measures given by Dalton for the absorbent power of boxwood charcoal, and which are very far beyond an expression of the real absorption by pine charcoal exposed to moisture on the open field, was the first to account for one feature of the advantage gained by pulverizing the soil. But neither he, nor any other writer on agriculture, has alluded to the fact, that dissimilar soils absorb unequal quantities of the components of the atmosphere. This is a topic of great importance in practice, and should be submitted to rigid experiment. From this investigation will appear the reason why certain iron-stone lands and fine clays are so decidedly superior to loose sandy soils. It leads also to the conclusion, that an addition of barren sand to clay is injudicious on the whole, for the same expense directed to burning the surface, or turning in green fallows would lead to much more real advantage.

"Again, we learn by the result of the foregoing practice, as well as from investigations with charcoal, that those plants such as tobacco, Jamestownweed, wheat, &c., which do not draw sufficient nitrogen from the air for luxuriant growth, may be abundantly supplied in a highly porous soil, solely of mineral earth, without humus.—That decaying vegetable matter is not to them food, but only the gaseous bodies which they yield by decay, that the same gases absorbed by certain porous minerals from the atmosphere are adequate to their development.

"The farmer, therefore, is put in possession of an important principle, which may be satisfied by very dissimilar practice. He learns that ve-

getable matter is unnecessary to fertility, where his soil is sufficiently ameliorated by burning for increased porosity, or that if burning is improper, as in sandy and limestone soils, he can secure the object aimed at by impregnating the land with vegetable matter or adding charcoal or burnt clay from elsewhere."

He concludes by saying,

"But there are two essentially distinct and essentially important principles in the cultivation of such plants as tobacco and wheat.

"1. The presence of saline matters.

"2. The presence of ammonia, &c., in the soil, either in virtue of an abundance of decaying vegetable matter, or by reason of the porosity of the soil.

"Let me be well understood: the two principles laid down, if correctly apprehended, point out the method of treatment to be pursued in every case, but I leave the question of expediency and profit to the farmer; he must decide whether, to attain the second desideratum, he will burn a stiff clay, or fallow, with clover; both will answer the end, but the former is more durable, for a good burning will show its effects for seven or more years. In sandy tracts we may improve by fallows, charcoal, &c., but cannot by burning, which increases the looseness of the soil. Limestone lands must not be burnt, for obvious reasons.

D. P. GARDNER, M. D.,
Lecturer on Agricultural Chemistry.

New York, June, 1844."

MECKLENBURG.

We have just returned from a visit to the county of Mecklenburg, full of admiration of the country and its inhabitants. Surely, the advantages of this delightful region are unknown to others as they were to us.

On Tuesday, the 2d of July, we left the city of Richmond, and by way of rail road reached Ridgway, North Carolina, on the morning of the 3d. Permit us to say, that this rail road from Petersburg out, is one of the most indifferent in construction and conducted with the least regard to the comfort and convenience of passengers, that it has ever fallen to our lot to encounter. The country through which we passed presents in general a gloomy and melancholy aspect. The barrenness of the soil on the ridges is hardly less painful to the eye than the jaundiced and sickly appearance of the inhabitants on the flats. But as we approached the Roanoke, in travelling from Ridgway to Boydton, the scene was entirely changed. Instead of the barren sands and stumpy pines of which the

eye had wearied in the travel of the day before, we passed through a fine red soil, abounding in hickory, poplar, dogwood, and locust: as we approached nearer to the river, these natives of the forest began to yield to highly cultivated tobacco lots and magnificent fields of waving corn.— Nothing can be more beautiful than the smiling appearance of this fertile region at this delightful season.

We met our friends of the Hole and Corner Clubs at Boydton, on the fourth, and never have we seen that glorious day more elegantly or more appropriately celebrated than in the agricultural zeal that was manifested by the members on this occasion. The day itself was a most charming one, the assembly numerous, the table of mine host, Mr. Boyd, groaned under the luxuries of the season, and all was pleasant mirth and delightful hilarity. It was charming to one who has been too long accustomed to the stiffness, the pretension, and the hollowness of city forms, to witness the frankness, the cordiality and the kindness of these really elegant and polished country gentlemen. If we wished to show a stranger a specimen of what he had heard so much of, the "Old Virginia gentleman," we would take him to the county of Mecklenburg.

We spent several days with our friends in the vicinity of Boydton, and we can assure them that their kindness and hospitality made an impression on our heart, never to be effaced.

We visited several fine estates upon the Roanoke, and were not less surprised than delighted at the beauty and fertility of the country. The low grounds are, we think, perhaps, originally rather lighter, and generally more worn, than the James River flats. But they have the great advantage of being much freer from overflow. We saw what is very rare here, two or three hundred acres of these low grounds in their primitive state, a large portion of it indeed in its original forest growth. Nothing can exceed the fertility of such land. The corn, which was planted as thick as it could stand, was enormous in size, and almost black in color; whilst the weeds, which it was impossible to keep down, were hardly less luxuriant than the corn.

The highland, which is generally of a light chocolate color, is equal, we think, to any we ever saw. A very frequent rotation in this part of the country is corn, wheat, and grazing; all the manure being reserved for the tobacco

lots. Notwithstanding this skinning process to which it had been subjected for fifty years, we saw this land bearing a crop of at least eight barrels of corn to the acre. If this be not a test of good land, we know not what is.

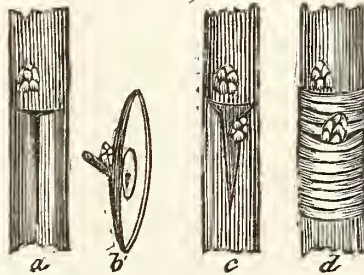
Tobacco is the great market crop of this region, but we have never seen a country better adapted to the growth of wheat and clover.

With a judicious rotation of crops, and a proper use of clover and plaster, these lands could be brought to a state of fertility not to be excelled by any in Virginia. The highlands

are sold for from ten to twenty dollars per acre, and the lowgrounds are valued at from thirty to fifty. An estate of a thousand acres, containing, say two hundred and fifty acres of lowland, can be purchased for about fifteen thousand dollars. For the natural advantages of soil, superiority of climate, and the benefit of the most refined and elegant society, we have never seen any part of the world, to which we would recommend a gentleman wishing to invest his funds in real estate, in preference to this Roanoke country.

For the Southern Planter.

B U D D I N G .



ADDITIONAL THOUGHTS ON FRUIT TREES.

Mr. Botts,—The methods of raising fruit trees are various and the results often *fruitless*. One method, principally recommended by almanac makers, (and none the less believed in by some on that account,) is to stick a twig into a potato in the spring and bury it in the ground. Sometimes wax is used instead of the potato. That *this* method ever succeeded I know not, but the former was tried the past spring with signal success—that is to say, the individual succeeded in raising an unusually fine crop of potatoes—nothing more.

The truth is, Mr. Editor, all such efforts at raising fruit trees will produce little else than "small potatoes." One in a hundred *may* grow but the ninety and nine will be likely to come up missing. Why then may not, or rather *will* not, every individual who desires to raise an orchard, adopt one of those two plans that have been tried with entire success by thousands, and I may say for thousands of years? Some men, it is admitted, do not succeed at budding or grafting who succeed admirably in other things that require more labor, more skill, and more constant attention. Such know not the plea-

tures or the profits that flow (not through the worm of the still) from an orchard of well selected fruits.

The methods of grafting are numerous, and some of them complicated. The one which I have adopted is simple and tolerably successful. The description of it is more difficult than the operation. The first thing to be done is to procure during the winter a nice parcel of grafts of choice varieties of fruit. These may be put away in moist sand or clay in a dry cellar and kept till wanted for use. If the trees are convenient from which the grafts are to be taken, they need not be cut till they are wanted. The next thing is to have a healthy parcel of young trees from the size of a pipe-stem to that of a man's thumb. The best time for grafting is just when the buds on the trees begin to swell—the latter part of March or first of April. Having procured the grafts, the stocks or young trees being in the proper place, safe from the encroachment of pigs and even hens, a sharp knife and a ball of yarn are all that is necessary. Cut the stock off even with the ground and remove the earth a little from around it that you

may operate more conveniently. Then with the knife split it to the root, or about one inch. Trim the lower end of the graft, which should be about eight inches long, into the shape of a wedge, and insert it nicely into the split just made, the bark of each coming in close contact on one side. Then wrap it with yarn and draw up the earth two or three inches above the connecting part. If the stock is larger than the graft, two grafts may be inserted. The whole operation may be performed with more comfort to the operator by taking up the young trees and setting them out when done.

Budding is also quite simple, and it possesses several advantages over grafting. It may be performed at any time from the first of June till the middle of September. The stock is not injured if unsuccessful, and the operation may be repeated several different times. Many varieties may be inserted on one tree. I have just seen six different roses growing on one bush—the pink tea, white tea, damask, common, monthly, and maiden's blush. This fact is mentioned for the special benefit of the ladies, who I know are fond of variety.

As in the operation of grafting, a sharp knife, a ball of yarn, healthy young trees and twigs of the present year's growth from which to obtain the buds, are all that is necessary. The operation is thus performed. Fix on a smooth healthy part of the stock, then with the knife make a transverse or horizontal cut across the bark, a little more than the width of a penknife blade—from the middle of this transverse cut make another downwards about an inch—the two cuts forming the letter T. Then holding the twig with the thickest part of it toward your body, enter the knife a half inch above the bud, cutting slightly into the wood and coming out a half inch below it. The little wood that adheres to the bud must be taken out with the point of the knife. If a little hole appears in the bud, another must be obtained. Now with the finger nails or the point of the knife separate the bark of the stock on each side of the perpendicular cut, clear to the wood for the reception of the bud, which slip down between the wood and the bark to the bottom of the cut. Cut off the part of the bud that extends above the transverse cut that it may lie close to the wood. Lastly, wrap nicely with yarn, beginning at the lowest part of the perpendicular cut and continuing to the top. The eye of the bud must not be covered, though it is very necessary to wrap the yarn close above and below it. In about three weeks the yarn must be loosened and in a week or two more taken off entirely. The following spring the stock may be cut off an inch or two above the bud, and during the summer it may be taken off close to it. From this time nothing must be suffered to grow on the stock but the inserted bud.

I rejoice, Mr. Editor, to observe the increasing attention paid to fruit trees. It bespeaks a refinement of taste and a lively sense of our best interests. But information is needed, some of which I have thus attempted to give, though in a bungling way. For the attention which I have paid to the subject I feel amply compensated. And if I have succeeded in raising two or three hundred fruit trees of many and select varieties, by devoting a few moments of mornings, which many spend "in base, inglorious sleep," others may go and do likewise. I bid them "God-speed."
P. B. W.

We have had the cut made for the better illustration of our correspondent's directions for budding. We hope it will meet his approbation.

PAINT.

In the last number of the Planter we expressed the opinion that the cheapest and best pigment for the farmer's use, was white lead, and we promised to give some directions for its use. To say nothing of the preservation of the wood to which it is applied, the gratification the painter's brush affords the eye, is worth ten times more than its cost. Can any thing present a stronger contrast than the dingy, gloomy, and sombre appearance of a mass of unpainted weatherboarding, and the lively, cheerful, animated scene presented by a neatly painted homestead? Nature with her refreshing green of spring, hardly does more for her works, than man with a little keg of white lead, may do for his. We were forcibly struck with this lack of paint in a visit we lately made to one of the most splendid estates in Virginia. The situation was high and airy, the dwelling house large, commodious and handsome, the outhouses comfortable and properly disposed, and the fencing capital. But with the exception of the dwelling, there it stood in its original gloom, ignorant of paint; and buildings that probably cost ten thousand dollars, for want of a hundred dollars worth of paint, were suffered to decay and offend the eye. A Northern man on approaching the house would naturally have exclaimed, Alas! for the proprietor, how long has he been dead. He would have no idea that any thing less than sudden death could have caused him to leave his premises in such an unfinished state. A *roofless* house would be as familiar to his eye as an *unpainted* one. We saw enough of elegant taste displayed by the lady of the mansion to infer that she is constantly at the gentleman to have

the buildings and palings painted, and we saw enough of his deference to her wishes, to infer, that he is constantly *promising* to do so.

The main reason of the nakedness of our buildings is an exaggerated estimate of the difficulty of mixing and applying paint. This operation is, in fact, extremely simple, and for all plain purposes may be performed by any smart boy on the plantation. The white lead comes ground in oil, and may be had of any of the painters or apothecaries. (Our friend Du Val across the way will furnish it as good and as cheap as any body.) This lead is of two qualities, the No. 1, and *Extra*. The first can be purchased for about eight, and the latter, which from its superior quality is actually the cheapest, can be had for nine dollars the hundred weight. To every twenty-five pounds of lead about a gallon of linseed oil (which can be had for a dollar a gallon by the quantity) should be added. The whole should be strained through a wire sifter, or piece of coarse muslin, to free it from the particles of dry skin that have formed in the keg. Incorporate intimately into this mixture about a table-spoonful of yellow litharge, for every gallon and a half of paint, and you have *white paint*, ready for use. All kinds of work should have three coats—the first, or *priming* as it is called, should perhaps be made a little thinner by the addition of a little more oil than here directed, and care should be taken that it is applied to every part of the wood.—When this is *perfectly dry*, the second coat, of a little thicker consistence, may be applied.—This should be laid on smoothly, with long, even strokes of the brush, and the third coat should be applied about as thinly as the first, with a light hand, and with particular attention to evenness and smoothness.

For colored paints, a flag and stone, worth about three dollars, are necessary, to rub down the pigment used. For a lead color, admirably adapted to house tops, ploughs, and other implements, dissolve lampblack in a little spirits of turpentine, and add to your white paint until you shade it to your fancy. A beautiful blue may be obtained by mixing the Prussian blue of commerce with oil, and rubbing it down on the stone until you reduce it to an impalpable powder. Other colors may be obtained in a similar manner, by a resort to other pigments.

Paint brushes should be cleaned with spirits of turpentine when the job is finished, and be-

tween the intervals of using them they should be kept immersed in water, to prevent the paint on them from becoming dry and stiff.

Midsummer is considered an unpropitious time for painting, as it is supposed that the heat of the sun has a tendency to evaporate the oil before it sinks into the wood. In this climate, painted work will require a new coat at least once in three years. But if the pores of the wood are well filled at first, this renewal is a small matter, requiring comparatively little labor or material.

For the Southern Planter.

A NEW AGRICULTURAL CLUB.

Mr. Editor.—During the month of last December, we formed an association in this neighborhood, which is called the Chuckatuck Agricultural Visiting Club; and although it has been in existence but seven months, its good effects are already very manifest. The Club consists of twelve members—a Chairman for the day; a Recording and a Corresponding Secretary.—The Constitution and By-Laws, similar, I suspect, to those of other visiting Clubs in the State; we meet the second Wednesday in every month, at the house of some member, when his farm, implements, domestic stock, &c., are examined, his mode of culture detailed, and as there is a free interchange of opinion among us; that which is thought worthy of praise is commended and that which deserves censure is in a respectful manner disapproved of. Each imparts to the Club whatever information he may be possessed of on any particular subject, when requested to do so. These meetings are exceedingly agreeable, engendering a spirit of good feeling and creating an interest in the welfare of each other, which it is gratifying to witness.—The river lands of this county are, I think, among the most desirable in the State—possessing many natural resources for being made rich. They have immense deposits of decomposed oyster shells, marl of the finest quality and in inexhaustible quantities; vast collections of rotted vegetable substances in the many ravines which abound, marsh mud, sedge, &c. In short, did we but avail ourselves, in a limited degree, of the means within our power, nearly every arable acre of land on Nansemond river might be made to produce sixty bushels of corn and twenty-five of wheat; whereas, I do not think many of the farms average seven bushels of the former; but little of the latter is sown. Since the publication of the Farmers' Register there has been a very decided improvement in this county. Twelve years since, I imagine there were not one hundred acres of marled land in the county; now there are thousands; and where there were then

hundreds of loads of putrescent manure made, there are now tens of thousands; then there were *patches* of clover, and few of them; now, fields, both of clover and spear-grasses. In fact, it was Mr. Ruffin who first gave an impetus to improvement here, and I conscientiously believe that through the instrumentality of his Register he has benefited this county one hundred thousand dollars. Nor am I unmindful of the Southern Planter; for what Mr. R. so nobly began, you are most valiantly carrying out, and I verily believe that you are being of more essential service to the Old Dominion than all her politicians put together. I incline to the opinion that by a judicious application of marl, seeding down a part of our land every year to grass, top dressing that crop in the spring with all the spare putrescent manure of the farm, (and this mode of applying manure I think the most economical, judicious and expeditious that can be adopted,) ours may be made a fine wheat soil; oats do not grow well here. Very few of us grow wheat, preferring trucks, such as watermelons, sweet potatoes, &c. These patches generally consume nearly all the manure made on the farm, leaving little for aught else. But that which more than all others, has retarded the improvement of lands in Nansemond, has been the policy pursued of hiring out to rail road contractors or putting all the efficient hands to oystering and cutting wood, retaining only the more indifferent hands to carry on the operations of the farm, but as such high prices cannot now be procured for hands, it is to be hoped that we will become more of a farming community, and by using our manures liberally and applying them judiciously, we must inevitably have some among the richest lands in the State.

D. H. HATTON, *Cor. Sec'y*
 Chuckatuck Agricultural Club.

Stockley, Nansemond, Va., July 10, 1844.

There is no agricultural information that we receive with more pleasure than that of the formation of a new CLUB. Our late visit to Mecklenburg has more than ever impressed us with the value of these institutions. They engender an *esprit de-corps* that gives a new impetus to agricultural improvement. In the midst of these Clubs, agriculture, as it is entitled to do, becomes the chief subject of consideration; inquiry is awakened, and an infinite deal of talent that was wasted upon minor subjects, is brought to bear upon this most interesting pursuit. We will press this subject until we establish an agricultural club in every neighborhood in Virginia.

CURE FOR THE GOUT.

Live upon sixpence a day, and earn it. Such is Dr. Abernethy's prescription.

FRENCH TOAST.

From a French gentleman, of this city, we obtained the following recipe:—Take a loaf of light baker's bread and cut it into thin slices—mix three eggs—three table-spoonfuls of sugar, and a tea-cup of milk, taking care to beat the eggs until they are very light. Soak the bread in this custard. Have some lard boiling hot, enough to cover the bread, and fry it until it is brown—then serve it up hot.

This is a very convenient and very pleasant dessert. The children, who are very fond of it, have dignified it with the name of *French toast*.

FLOWERS.

The most beautiful array of flowers may be produced by taking an elder stalk, punching out the pith, and placing within the stalk a variety of seeds whose flowers blossom about the same time, and burying the stalk in the earth. When they spring up, the sprouts form themselves into one stalk; and when blossoming, it bears the various kinds of flowers according to the seed you planted in the stalk. Try it, ladies.

Michigan Farmer.

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