

# THE SOUTHERN PLANTER,

Devoted to Agriculture, Horticulture, and the Household Arts.

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

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

FRANK: G. RUFFIN, EDITOR.

P. D. BERNARD, PROPRIETOR.

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For the Southern Planter.

## WORN-OUT LANDS IN VIRGINIA.

*Mr. Editor.*—Much has been said of late in our agricultural periodicals, on the improvement of worn-out lands. In our old commonwealth, no subject can compare with this in importance, and yet, few have been treated in a manner so little calculated to lead to valuable practical results. Indeed, in most instances, the modes prescribed tend rather to discourage, from the fact that those sources of fertility, so frequently recommended, are wholly inaccessible to the majority of farmers, or if accessible, involve an amount of labor and cost incompatible with their present necessities. Such prescriptions are suited only to the farmer who resides in the vicinity of a city, or to those of large means and independent of the immediate productions of their farms.—Lime, guano, bone-dust, ashes, poudrrette and the various chemical compounds now in vogue, are, perhaps, all valuable, some of them certainly are, and should be resorted to whenever practicable; but how many of our farmers are able to purchase those materials, and incur the heavy cost of transportation, with a fair prospect of remuneration, under the existing uncertainty of our staple crop? What then is to be done by those owning exhausted farms, with limited means, and remote from those artificial sources of improvement? Are they to remain stationary and without hope in the future, while the demands of their families and the tax-gatherer are yearly increasing upon them? What then is the remedy? Simply a cheap, economical mode by which their lands may be speedily brought to a degree of productiveness that will enable, and, at the same time, encourage them to resort to higher grades of farming. On this subject, I propose submitting a few practical reflections—the result of my individual experience.

The first inquiry that presents itself, is, by what means have our lands, once so productive in all the staples of the country, been deprived of their fertility? And next, what practicable mode is there, within the reach of all, of restoring, in some degree, that fertility at the least cost and in the shortest time?

The exhausting system to which our lands were for a long time subjected, and are now to a great extent, affords a ready solution of the

first inquiry. Extended and superficial culture, with heavy and frequent cropping with tobacco, corn and wheat, depending wholly upon the native resources of the soil, in time effected an almost total exhaustion of its vegetable and mineral substances, or at least, such a special exhaustion of some of the indispensable ingredients of the surface soil, as to render it incapable of longer producing remunerating crops. The surface soil having been thus deprived of its fertility, the ready suggestion of common sense would seem to be, to look to the subsoil to supply the deficiencies of the surface. Accordingly we shall find here, in all clay soils at least, much that is valuable, requiring only to be brought to the surface to become available. Deep ploughing then, may be regarded as the first step in the process of renovating old lands in certain sections of our country, and indispensable to their permanent and progressive improvement. In such cases, it may be presumed that, in addition to the natural supply of organic and inorganic materials in the subsoil, much of that of the surface has been washed down into it by rains, and needs to be brought to the surface that, by the action of the atmosphere and other causes, they may be rendered soluble, and in a condition to be taken up as food, by the roots of cultivated plants. As an evidence of the fertility of our subsoil, I will here mention a fact which has more than once come under my observation. In a field much infested by ground-hogs, near the den of one, upon a heap of clay several inches deep, which, from its appearance, had evidently been drawn by the animal from a considerable depth beneath the surface, the wheat had branched more, was more luxuriant, with greatly superior heads, and particularly striking from the brightness of the straw compared with that around it. This difference was evidently owing to the existence in the subsoil of some virtue of which the surface was deficient.

Next in importance to deep ploughing, must be ranked clover and plaster. They are inseparable, and the farmer who uses one without the other, is insensible to his own interests. Its action is two-fold: by its roots it penetrates and loosens the subsoil, bringing up, and as it were cooking the food of other plants—by its luxuriant top, it shades and screens the surface from the injurious effects of the sun. On unimproved estates, where the number of animals

19. G. Hoelke

kept should not exceed the absolute requirements of the farm, and where, of course, putrescent manures, to any extent, are, for a time at least, out of the question, the farmer must look to clover and plaster as the pillars of his support. Without them, in the absence of means to procure concentrated manures, he can do nothing. Hence, the question, as to the best mode of ensuring a stand of clover, becomes one of grave importance to the farmers of poor lands. I apprehend a costly error is frequently committed by many farmers, who rely for success on the quantity of seed sown, without reference to other material considerations, being unmindful of the fact that a quart of seed and half a bushel of plaster per acre, is more to be relied on, than a gallon of seed without the plaster, in an unfavorable season. As a general rule, a bushel of seed to twenty acres sowed the last of February, or first of March, well scattered in breadths of about eight feet to the hand, and after a few frosts rolled either with a peg roller or a smooth one, will be found to give a sufficient thickness, provided half a bushel or three pecks of plaster is applied to the wheat land in the fall. The fall sowing of the plaster is preferred, that it may be dissolved by the winter rains, and thus made available to sustain the young clover, during drought in spring and summer. If the application of the plaster is postponed till spring, it may often fail in its effects, from the want of rain, to dissolve it in time to give the young plant a vigorous start.

Having accomplished a good stand of clover, the task of improvement is but half performed. Instead of yielding to the temptation (and it is a strong one,) of grazing or mowing, except in fertile spots, the luxuriant crop of the first year, it should be permitted to remain and deposit its seed on the land. The second year's crop, when in full bloom, should be well turned under, if the land is intended for wheat, and care should be taken in the preparation not to turn back the furrow slice. If for corn, partial fall grazing may be allowed, and early ploughing becomes necessary to destroy insects. In the gradual development of this system, under a judicious rotation, the profits of the farm are constantly increasing, and also the means of adding to the fertility of the soil, by the increased quantity of manure, which can now be produced from the resources of the farm. Decided as are the benefits of guano on our red lands, though less than on other soils, I can confidently assert, that I have seen on my own farm even more striking and permanent results from the first application of clover and plaster, in the grain as well as subsequent grass crops. Now there are means of improvement within the reach of every farmer, and after his fields have been each subjected a few times to the process above described, he will be enabled to draw more heavily on the fertility of his soil in the form of grain, beef, butter, &c. and to repair the waste thereby occasioned, by recourse to concentrated and costly manures.

It is a subject of surprise and much regret, that so few of our farmers in eastern Virginia raise their own clover seed. Two cradlers in four days, I apprehend, can easily save from six to ten bushels of an average crop. The subsequent labor of housing and threshing, from the haul is insignificant, and separating the seed from the chaff is unnecessary when to be used on the farm. Now this seed is worth from thirty dollars to forty dollars, a sum sufficient to purchase the necessary supply of plaster. It is estimated, that from three to five thousand dollars are annually paid for this article by the farmers of Orange, when they could save it for themselves at one-twentieth of the cost.

The low price of grain and the high price of guano, it seems to me, should naturally lead to inquiry on this subject, by cultivators of poor lands. For such, these suggestions are intended—but should you, Mr. Editor, incline to the belief that I am behind the age and that my remarks are more appropriate to a period twenty years past, I can only regret that my observations lead to a less happy conclusion, and that they are as applicable now, in very many instances, as then.

In my next I shall offer you some reflections on draining—a department little understood and much neglected.

JAMES NEWMAN.

Orange county, January, 1852.

We knew no farmer in the whole range of our acquaintance of sounder judgment and more practical views than our friend Mr. Newman, who has the good sense to put his name to his essay. We commend his essay to the attention of all farmers within his range of country. Though several of his suggestions are applicable to the whole State.

We trust that we shall hear from him frequently.—Ed.

For the Southern Planter.

#### EXPERIMENTS IN THE APPLICATION OF PLASTER TO MANURE.

*Mr. Editor*,—The great importance of guano as a manure, and the liability of its ammonia, the most important of its fertilizing constituents, to escape into the atmosphere, will, I trust, be a sufficient apology for my offering a few remarks to your readers, in regard to the manner in which this difficulty may be obviated.

All the analyses of guano that have been published, show that most of the ammonia exists in the form of *wrate* of ammonia, a fixed and insoluble salt, and that the amount of carbonate of ammonia, the only volatile salt, is very small. This is true in guano that has

lost most of its ammonia by decomposition, as well as in that of the best quality. The explanation of the constant absence of the carbonate may be found in the fact, that so soon as guano becomes moist in a warm or temperate atmosphere, decomposition commences; this decomposition consists in the formation of the carbonate from the urate of ammonia, and there being nothing in the guano to prevent, the carbonate immediately escapes into the atmosphere. When guano is applied to land, this decomposition must take place rapidly. Under ordinary circumstances, a part of the carbonate will be carried to the plants by water, in which it is very soluble, while more or less will escape, unless we have present some substance which will decompose the carbonate as it is formed, again forming a fixed salt.

The well known power of the carbonate of ammonia to decompose plaster, the sulphate of lime forming the sulphate of ammonia, a fixed and soluble salt, has led many chemists to recommend the use of the latter with guano, and the experience of many practical farmers is in favor of such a mixture. But, as some persons are disposed to doubt the utility of plaster in fixing ammonia, particularly in dry seasons, I was induced to make the following experiments, with a view to ascertain whether definite conclusions might not be arrived at:

*Experiment First.*—About equal quantities of carbonate of ammonia and plaster were well mixed, and sufficient water added to make the mixture into a paste. When first mixed, the odor of ammonia was very powerful; after standing a few minutes the odor was sensibly less, and in the course of half an hour it was scarcely perceptible. After standing two days, an analysis showed the presence of sulphate of ammonia in quantity, together with a corresponding amount of carbonate of lime.

*Experiment Second.*—The same mixture as in the first experiment, slightly moistened. In this the decomposition took place as before, but not with such rapidity.

*Experiment Third.*—The same mixture as in the preceding cases, but left perfectly dry, the plaster having been previously dried at a temperature of about one hundred degrees. For the first twenty-four hours no perceptible diminution of odor took place; at the end of forty-eight hours, however, there was a marked diminution, and an analysis proved that, even here, a certain amount of ammonia had been "fixed," by its union with the sulphuric acid of the plaster. As plaster, when dry, still contains a certain percentage of water in chemical union with the sulphate of lime, this water should be liberated when the plaster is decomposed. Such was the case in the present instance, for the mixture, although kept in a close vessel, was moist at the end of two days.

*Experiment Fourth.*—Moist plaster was suspended over a solution of carbonate of ammonia; result the same as above.

*Experiment Fifth.*—Dry plaster, suspended

over dry carbonate of ammonia, placed in a close vessel, so that the plaster may be said to have been placed in an atmosphere of the carbonate. Result the same as in all the other cases; but the decomposition was slow, and less in quantity than when the two were mixed.

These experiments were repeated, some of them several times, and always with the same results. They prove conclusively that the mixing of plaster with guano, must, in all cases, prove beneficial; for, when we remember that the decomposition of guano leads, in all cases, to the formation of carbonate of ammonia, and that the carbonate, as showed in the above experiments, will decompose plaster, when in contact with it, whether wet or dry, there can be no room for doubt.

As guano is liable to absorb moisture, commence decomposition, and thus lose a part of its ammonia, it would be well for farmers to mix it with plaster as soon after its purchase as possible; or if it is not convenient to mix then, the plaster thrown upon the guano and moistened, will retain the ammonia until the farmer is ready to spread the manure on his land.

Again, the use of plaster in the farm-yard, the stable, and on the manure heap, cannot be too strongly urged. If, however, the manure heap is left to be drenched by every hard rain, not an uncommon practice, the use of plaster will be of little service, as the sulphate of ammonia, although not volatile, is very soluble.

It appears to me, that if a manure heap were well sheltered, plentifully supplied with moist plaster, and left until decomposition had far advanced, this manure would be more efficacious, in a great many cases, than if it were applied fresh. The plaster would retain the ammonia, the inorganic constituents could not escape, the decomposition would have progressed so far as to enable the crop to appropriate its constituents as food, more readily than if it were fresh, and its bulk would be greatly less, an important consideration on a large farm. But this is a matter for experiment, and I should be very much pleased if some of our practical farmers would take the matter in hand and favor us with their results.

V. M. I.

January 15, 1852.

For the Southern Planter.

## GUANO.

*Mr. Editor,*—Wanting more information than I have been able to obtain, in reference to guano as a manure for tobacco, and wishing to draw from others of more experience with it their success, I am induced to give you an account of an experiment made by myself last spring, if you think it worth publication. After thoroughly preparing a piece of thin

land for tobacco, I divided it into three nearly equal parts. On the first piece we applied twenty-five loads of well littered stable manure, about seventy bushels to the load; on the second, four hundred pounds of Peruvian guano; and on the third piece, three hundred pounds to the acre, and harrowed it in with a heavy harrow on the same day. The land was then laid off (with a shovel plough) three feet apart either way, and hilled—endeavoring to draw the guano to the hill as much as possible. The crop was planted from the tenth to the thirtieth of June, and stood well, but was slow to grow, owing to severe drought, until early in July, when we had a tolerable season, and re-set the few missing plants. The weather continuing dry afterwards caused another serious check to it, until the more seasonable rains in August, when it made a rapid growth, and with the late autumn ripened well.

The first piece, or the stable manured land, made a fine crop of heavy tobacco, averaging a pound to every three plants. The second piece, with four hundred pounds of guano, made a pound to four and a half plants. And the third a pound to six plants.

The land would probably have made without manure six hundred pounds to the acre. The crop on the guanoed land was about one week later in ripening, but ripened first where the guano was heaviest, and cured of a darker color, which I think was owing to later cutting, and the weather being colder. The experiment was made on clover land of two years standing, ploughed early in the winter to the depth of seven inches, and re-ploughed in the spring. The soil has some admixture of sand with a stiff red clay subsoil. I have not been able to account for the great difference in yields from the two guanoed pieces, the land being nearly of the same fertility, except that the third piece was the last planted, and with smaller plants, and possibly not so good as the beds had been closely drawn. The guanoed land required nearly double the work to keep under the summer grass.

I am a new tobacco grower, the crop now on hand being my first; but with the kind instructions of experienced friends and neighbors, and with what I have been able to glean from agricultural journals, have succeeded in growing and curing a good crop of bright, excellent tobacco, and think, by accident, have learned something worth knowing. After cutting, the tobacco was set up in the field in the usual way, to protect it from the sun, carrying as much as was convenient to a place and covering it with top fodder. In hauling it in, a pile of several hundred plants was overlooked, and when found more than a week afterward, was of the most beautiful yellow, and seemed to have much thickened, and I supposed as much injured. It was kept to itself, and so far from being at all damaged, it is the very best tobacco we have. It may not be new to tobacco growers, but was so to me; and I think I shall be profited by it in curing another crop.

If I am not fatiguing your patience too much, it may not be out of place here to mention an expeditious and recent way to save the broken off leaves. With a large needle and cotton thread they are strung together, eight, ten or more, to prevent slipping, and they are ready to hang, by separating two leaves at each end and laying them across the stick, then stretch the string along the stick, to separate the leaves as much as is desired. In this way they can be saved in half the time usually taken, are much easier to handle afterwards, and attended with less loss.

I am having a tobacco press made, different from any thing I have seen, and when finished, if it comes up to my expectations, you shall hear from it.

Very respectfully yours,

JAMES A. REID.

The above article of Dr. Reid is just what we want—an accurate statement of experiments made with guano. There is much diversity in the accounts of its operation on tobacco, and we can decide nothing until we get the facts. Let us have more of them, and let them be accurately stated.—Ed.

#### CURING BACON HAMS.

The following communication on this subject was sent to us by the gentleman to whom it is addressed, for publication in the Southern Planter:

*Mr. Vaden:* Dear Sir,—I have been requested by you to give my plan of curing bacon hams. I have only one objection in doing so,—being a widower, I like to stand fair with the ladies. Some of them, jealous creatures, dislike to see a man a good domestic manager, dislike to have their rights infringed upon to this extent. In this kind of management they like to stand *alone in their glory*, and are much inclined, I fear, to look upon a man who has a pretty good knowledge of *their* affairs with some suspicion. They must recollect, however, that my knowledge of the kind is the result of *dire necessity*, and I would, most willingly, *at any time*, let off this kind of management, to any extent, into the hands of some *fine, fair lady* as might suit her. But this curing of hams is rather out of their line. They should, therefore, acquiesce, and be willing to be relieved, to this extent, at least, and pride themselves alone in sitting behind a fine old, juicy, Virginia cured ham, and sharing it out, taking to herself all the credit and pleasure of having it extolled by her admiring friends, while the good man spreads his mouth in silence, and is much pleased to see with how much grace she takes all the credit to herself.

My hams have been commended to such an

extent, by good judges—some of them *fine managing ladies*, who do not always yield the palm of victory without a struggle—I shall make no further effort to improve on my plan for the present.

In the first place I have my hogs well fattened before I kill them. I most commonly kill one day and cut out the next, salting up and packing away on a platform on the northern side of my smoke house. In salting my hams last year, I took in my fingers some pulverized saltpetre and sprinkled on the flesh side of each ham, and then applied a plentiful mixture of one-third dry hickory ashes and two-thirds of salt. They laid in pack about six weeks. I then rolled them in dry hickory ashes and hung them up. My plan of drying is to kindle up a fire every morning of small round hickory wood. On the 17th March, (I intended to take them down the 1st of March,) the hams were taken down, and the flesh side covered with dry hickory ashes, at least half an inch thick, and placed singly on shelves in the smoke house, with flesh side up, putting a few dry ashes on the shelves before putting on the hams; or, instead of the ashes, a couple of small sticks might be used under each ham. Here they would keep sate, sound, sweet and juicy, *in my opinion*, for twenty years, the house of course always being rat and mouse proof.

My hams were soft and spongy while in pack, and I supposed they were ruined, and determined hereafter to use no more ashes in the salting, but cutting a few in two, discovered that while they were soft, they were *perfectly sound*. They proved to be so very fine, I shall pursue the same plan again. The application of the ashes on the several occasions, causes, perhaps, the juices of the ham to be retained, as well as to absorb any undue moisture, and to keep off the fly, bug, worm, &c.

Very respectfully yours, &c.

W. W. HANCOCK.

Chesterfield, November 25, 1851.

For the Southern Planter.

#### A SUBSCRIBER'S APPEAL IN BEHALF OF THE PLANTER.

*Mr. Editor*.—I fear your correspondents *Yadkin* and the one from North Carolina (from whose letter you gave an extract in the January number of the *Planter*) begin to think I do not intend to comply with my promise, endorsed by you, "that when I recovered from my indisposition I would try to answer more of the queries of "*Yadkin*." It is due to you and myself I should inform them I am now just able to sit up and walk a few steps, being confined to my bed nearly thirteen weeks, and when I can comply it is not in my power now to say. I can't read much, but took a peep into your January number, and ventured to read your "New-Year's Salutation, and Something More," which I have done with interest;

and I wish it could be read, and its contents duly considered by every *honest* farmer in Virginia. I am glad you bring to our notice subjects of such *vital* importance to the interest and prosperity of our beloved Virginia, in that independent way that becomes you, as the editor of such a work, and in language that cannot be misunderstood. Go-a-head, sir—*agitation, agitation*, has accomplished much, and may do it again. But you *must* have more subscribers to accomplish much and to enable you to give us drawings or wood cuts, so important to make the *Planter* what it must be. I propose a very easy plan which, if adopted will, with small efforts, insure your list to be doubled in one month. *It can be done*. Let every man of us resolve to obtain one new subscriber to the *Planter* within one month as a return for your "New-Year's Salutation, and Something More." Every subscriber can do it, if he has any influence or any friends at all. Though I am now confined to my room, *I will do it*, or take another myself. What is the little trouble, or what is a dollar, when compared to the end in view? Your subscribers may not respond to my proposition, but if you will make it they can't refuse so small a request. Will you try it? Ah! if such an effort would only insure the election of some Democrat or Whig friend to some office, I will venture to say your number of subscribers would be doubled in one week—committees of vigilance would be appointed all over the State. But to advance the great interest and almost insure the prosperity of our State, and, finally, the happiness of our families and their posterity, is (it would seem) of much less importance. Is it not strange, that while we all desire prosperity and happiness, yet we are so unwise in the choice of means, often so completely in our power to obtain that end? Yet it is so. If your list is enlarged, as it ought to be, you could devote more time to important work to advance the interest of the *Planter*. A few years ago the Old Dominion stood still, idle and proud, with her arms akimbo, laughing at Yankeeism, until the Yankees had well nigh sucked all the life-blood from her veins, and robbed her of her glory and strength. She now needs your strong tonics to restore her again to her wonted strength, and then she may move on in her majesty and power in the broad and plain road to prosperity and happiness. I have said much more than I intended when I began—I am tired and must stop. Success attend your efforts.

Respectfully,

W. TIMBERLAKE.

*Belle Air*, Jan. 22, 1852.

We insert the above at the request of our friend, the writer. If one-tenth part of the seventy-seven thousand farmers of Virginia were animated by the same spirit, Virginia agriculture would be the pride of her sons and the envy of her neighbors.—Ed. So. PL.

## COLIC IN HORSES, AND THE USE OF THE TROCHAR.

*Mr. Editor*.—One word in reply to your comments upon my communication of the 3d of December, which appeared in this month's number. My horses *must* have been "of the right sort," whilst yours, one "half-bred," one "old," and the other probably less desirable than either, remind me of a lot of animals that a facetious dealer who once frequented this county, declined purchasing, being as much averse to carrying them to Richmond as Falstaff was his men through Coventry. But seriously, you astonished me very much indeed, for you know this *was* emphatically the land of blood-horses, and my long, constant, and intimate association with many of the worthies who figured so largely in elevating the character of that noble animal in this region, added to my own experience, led me to the confident assurance of the correctness of my position. It is true that I have *heard* of the death by colic of blood-horses, but the cases were isolated, "few and far between," and it yet remains to me to witness the first one. Now there may be, and doubtless is, a difference, probably an important one, in the constitution of your horses and ours, caused by the climate, soil and pasturage.

But the main object of my article was to promulgate, through the Planter, the means by which, as a last resort, horses might be saved when in the condition of the one of which I spoke. The process of this operation you will greatly oblige me by publishing, and I respectfully ask if the caption to this aforesaid paper is correct?

JAMES GOVAN.

February 5, 1852.

We think the term used, "Heaves," was wrong. But we did not use it. Whether put there by the publisher or by our friend, we cannot tell. We still think, with deference to the better judgment of Mr. Govan, that colic is not peculiar to the *constitution* of the cold-blooded more than the thorough-bred horse, but that its frequency in one case rather than another is due to difference in treatment, resulting from the different uses to which the two classes of animals are applied. Stewart, Stable Economy, p. 225, says:

"Heavy draught horses are almost the only subjects of colic, and among the owners of them it is difficult to meet with an old farmer who has not lost more than one. Light, fast working horses are rarely troubled with it, and few die of it. The difference is easily explained. Heavy, slow working horses are long in the yoke; they fast till their appetite is like a raven's; when they come home they get a large quantity of grain at once, and they devour it in

such haste that it is not properly masticated, and the stomach is suddenly overloaded.—Possibly the quantity may not be very great, yet it is eaten too fast. The juice by which the food should be digested cannot be made in such a hurry, at least not enough of it; and add to this the rapid distension of the stomach; more deliberate mastication and deglutition would enable this organ to furnish the requisite quantity of gastric juice, and to dilate sufficiently to contain the food with ease. In fast feeding the stomach is taken too much by surprise.

"Light horses are usually fed oftener, and with more regularity. They receive grain so often that they are not so fond of it, not disposed to eat too much; and the nature of their work often destroys the appetite, even when abstinence has been unusually prolonged.

"The bulk of the food, however, has a great deal to do with the disease. *An overloaded stomach will produce it in any kind of horse*, but those who have the bowels and stomach habitually loaded are always in greatest danger.

"This seems to me the principal reason why slow work horses are so much more liable to the disease than fast workers."

Thus writes a good judge, and we agree with him. But we may be wrong.

We did not understand that we were expected to describe the operation of the trochar, or we would have done it with pleasure in our last.

The trochar is an instrument used for punching holes in the intestine of the horse or cow to let off the wind which causes colic and which cannot escape in the natural way.—Having never seen one, we can only say that it is a tube and knife combined, which is held in place after the puncture is made until the gas escapes through the tube, and that it can be so regulated by a guard as to penetrate only to the depth required. Nor have we ever used, or seen others use on either horse or cow, the knife, which is a clumsy and dangerous substitute. All the knowledge we have on the subject is derived from *Youatt on the Horse*.\* At page 234, Skinner's Ed. he says:

"Where these two medicines are not at hand,

\* By the-by, "Youatt on the Horse" is the only complete veterinary treatise we have ever seen. There is no foolishness nor quackery in it, but sound sense, and honest science, and that too of a high order. Therefore, we advise every subscriber we have to send to J. W. Randolph of Richmond, and get it. The price, we think, is two dollars and fifty cents, and dirt cheap at that. Skinner's Edition is not equal to the English, but is cheaper, and will do very well.

and the danger is imminent, the trochar may be used, in order to open a way for the escape of the gas. The trochar should be small, but longer than that which is used for the cow, and the puncture should be made in the middle of the right flank, for there the large intestines are most easily reached. In such a disease, it cannot be expected that the intestines shall always be found precisely in their natural situations, but usually the origin of the ascending portion of the colon or the base of the caecum, will be pierced. The author of this work, however, deems it his duty to add, that it is only when the practitioner despairs of otherwise saving the life of the animal that this operation should be attempted. Much of the danger would be avoided by using a very small trochar, and by withdrawing it as soon as the gas has escaped. The wound in the intestines will then probably close, from the innate elasticity of the parts."

For the Southern Planter.

#### APPLICATION OF TOBACCO STALKS TO TOBACCO BEDS, &c.

*Mr. Editor.*—The article in the January number on the "Application of Guano to Tobacco Beds," I suppose is very good, but be you assured that no system is superior to that of underlaying with tobacco stalks. I speak advisedly, and from an experience of some ten or twelve years: and every planter who has adopted this course, will bear me out in this assertion. By the way, a friend of mine in Prince Edward county the last year, tested the merits of guano and tobacco stalks on two beds, but could realize no difference; it was neck and neck.

Relative to the communication on the "Application of Manures," I will remark that this subject is discussed in the most conclusive and laconic manner in the fifth volume of the Southern Planter, page 231. I will give an extract:

"What would you think of one who professed to be a surgeon without the knowledge of anatomy, or a physician, without knowing one medicine from another? How many of us know any thing of the ingredients of our lands, and how can we expect to improve them without such knowledge? Our ignorance on this subject has given rise to the slurs which are so often cast on scientific book-farming, and has caused many an honest man to be set down as an impostor, and the author of a humbug. For instance, I, living on land rich in mineral substances, tell you in the Planter, that I make fine crops from coarse unrotted manures, applied to the land; another of your subscribers, owning land, light and porous, and destitute of such substances, tries it, and finds his crop worthless and all burnt up; he tells you I am either a fool or an

impostor. I tell you it is best to bury manure because my land is close, stiff and impervious; another tells you it is best applied to the surface, because his is gravelly and porous, and the manure soon sinks to the roots of his crop. One tells you there is nothing like fall and winter ploughing for the ensuing summer's crop; he lives on land pulverizable by the winter's frosts; another tells you that fall and winter ploughing is labor thrown away; his land runs together from the winter's rains; and you will find as many contradictory opinions relative to the different kinds of manures; all owing to a want of the knowledge of the ingredients of our soils. If we wish to insure the permanent improvement of our lands, we must know what ingredients are present and what wanting in them."

Attribute this lengthy communication, Mr. Planter, to the interest I feel for the cause of agriculture. So wishing the Planter a happy and prosperous new-year, I remain,

Yours, most respectfully,

Wm. R. HATCHETT.

Danville, Jan. 23, 1852.

For the Southern Planter.

#### ESTIMATED COSTS OF FREE AND SLAVE LABOR,

QUOTED FROM HIGH AUTHORITIES.

In Vol. IV. of the Southern Planter, at page 265, there appeared a communication signed J. S. S. which, even without the signature, offers most ample internal evidence of being the writing of the late John S. Skinner, Esq. who was so long and extensively known as the oldest agricultural editor of this country, and a copious writer on agricultural subjects. The object of the communication referred to was to introduce another, from Dr. William Darlington of Pennsylvania, on "Improving Poor Lands by Liming," and to comment on such operations for Virginia and Maryland. The veteran writer then (in 1844) had nearly thirty years of experience as a student and also a teacher of agriculture. The result of all this long experience, of observation and of extensive communication with numerous intelligent agriculturists, in regard to the question of the relative cheapness of free and slave labor, may be inferred to be intimated, and with enough clearness, by Mr. Skinner, though not expressly or affirmatively stated, in this communication. In reference to the use of lime in parts of Virginia and Maryland he says: "The question then is, how far the farmer can haul it into the country before it begins, like the Indian's gun, to cost more than it comes to? and that depends, to be sure, on the nature of the road and the kind of team and vehicles employed, and at what expense they are maintained. Whether his driver is

bond or free? and this last branch of the question branches out again into the question of difference of expense between slave labor and free labor, for it by no means follows that because the man belongs to you, that, therefore, his labor comes cheaper than if you hired either a slave or a free laborer at eight or ten dollars a month—because, for every slave laborer of your own, you may be incumbered with a woman whose labor is not worth her expenses, and with several children—*consumers of much and producers of nothing*—moreover, the interest on the value of the slave is to be considered—what it would cost to insure his life and to insure him against running away? while the capital is at best *wearing and tearing onwards towards total loss*." Afterwards the writer returns to this question, in the last words of his communication, and by the following emphatic question, italicized as here copied, he would appear to decide against the economy of slave labor, in yet stronger language—though, as before, but interrogatively and by implication, in asking, "*Can grain be made profitably with slave labor?*"

So much as to the opinion of the oldest agricultural editor and instructor as to the greater cost (and, indeed, as he seems to intimate the totally unprofitable use) of slave labor for cultivating grain crops. I will now refer to another of the same profession, and of high authority, for the cost of cultivation by free labor. Judge Buel, Editor of the New York Cultivator, wrote and published in that paper, an elaborate and interesting article on corn culture, in which he estimates the cost in the following passage:

"I put the average expense of cultivating and securing an acre, at fifteen dollars, including a fair rent, though it ordinarily exceeds this sum. The farmer, therefore, who obtains thirty bushels from the acre, estimating the grain at fifty cents per bushel, gets a fair compensation for his labor and the use of his land. Whatever the product falls short of this is an absolute loss; and whatever it may exceed it is net gain."—*Cultivator of 1834*—*Re-published in Farmers' Register, Vol. II. p. 65.*

Judge Buel was a practical farmer, of experience, accurate observation and sound judgment—and having every facility for obtaining correct information of the agriculture of the Northern States generally, and especially of the easily tilled lands of the country surrounding his residence in Albany. No man could be better authority for agricultural facts and deductions, within his sphere of observation. Yet he estimates the actual cost of cultivating corn at fifteen dollars (and usually more) the acre—requiring, to barely reimburse labor and rent, a crop of thirty bushels, at the fairly stated price of fifty cents! This, then, may be relied upon as the cost of culture by *free labor*. Mr. Skinner supposed (as I infer from his questions) that slave labor is more costly than free labor—and not serving to get back the actual cost, if employed in *grain culture*.

Hence, if Judge Buel was right (which can scarcely be disputed) as to the *absolute* cost of corn culture by free labor, and if Mr. Skinner was correct (which I certainly do not admit) as to the *relative* costs of free and slave labor, then corn culture by the latter must be a losing business even when producing thirty bushels to the acre—and losing to a speedily ruinous extent, at the much lower usual rates of production in lower Virginia.

I shall not here oppose the proposition of the greater expense of slave labor by offering direct evidence in estimates of cost. Such estimates are necessarily conjectural, and are, therefore, uncertain, and usually of but little exactness. It is sufficient to meet Mr. Skinner's supposed proposition by reducing it to an absurd conclusion. If it required more than thirty bushels of corn, or fifteen dollars, to return the costs of culture, then nearly all the land of the eastern half of Virginia has been cultivated at loss, for the last century, or more—and full half of the land has returned not more than half the costs of its tillage. Such enormous losses, if conined for even ten years, would bring to ruin any individual farmer, and the whole community that could be so stupid as to persevere in such a course. Yet, instead of this ruinous result, the agricultural community of lower Virginia has certainly made some general and average profit, although very far less than might have been secured by a better and more improving system of culture. Still, very few of the best farms in the tide-water district, and after great and very profitable improvements made, have yet exceeded the average production of thirty bushels of corn. Hundreds of farmers, who have reaped better profits from their capital than any in all the Northern States, have not reached that average product—and many such still fall short of twenty five bushels. And there are thousands of other and worse farmers, who do not make the half of thirty bushels of corn, (and this their main crop,) and who yet have lived in comfort upon such scanty products, and have certainly grown richer. Further—there are other thousands who do not make more than ten bushels of corn on an acre—and who, though not to be cited as either good farmers or economists, or as profitable laborers or capitalists, still make out to live, rear and support families, and leave increased farming capital when they die. These general facts are notoriously true, and require no proof.

My deductions, from Judge Buel's estimate of the cost of culture by free labor, and also from all the facts under my own observation as to slave labor, have been directly the reverse of Mr. Skinner's. Yet we both had (in Virginia and Maryland respectively) very much the same kind of facts before us upon which to found estimates and make deductions. I am far from defending or excusing the course, or highly rating the profits of the farmers who are content with such poor average products



as ten or fifteen bushels of corn to the acre. Such returns indicate a wretched state of agriculture. I only say that even these low products are not necessarily and always obtained at loss, from slave labor. But I do maintain that even if a farmer in lower Virginia begins with the lowest of these products, and uses the ordinarily available means for increasing them by fertilization, he may speedily reach good profits by slave labor—and in most cases will derive much more clear profit from the improved rate of production of twenty-five bushels of corn, than thirty-five would return, according to Judge Buel's opinion, from free labor.

It would be waste of words to say more in support of the opinion above expressed as to the general results of farming by slave labor. But it may not be superfluous to add that in the last few years there have been spread extensively before the agricultural public, careful estimates, from different sources, of particular cases of the costs and returns of farming in lower Virginia, (and of exclusive grain culture for market,) which have shown very large and regular profits for farming capital; and which would compare well with, and perhaps surpass the profits of any other pursuit of regular industry or investment of capital in regular business, here or elsewhere. Hundreds of other improving farmers, in the same region, have derived and continue to derive profits which surpass any purely agricultural profits that can be made in the Northern States, from free labor. There is, truly, in lower Virginia, and in all the old States of the South, among the agricultural class, a great and lamentable amount of indolence, apathy, heedlessness, improvidence and wastefulness, all of which serve to detract very largely from the great available benefits of our position—and the indulgence in which errors would speedily bring to want and ruin any people whose advantages were not very great—or if no greater than those of the Northern farmers. Their greater (and very commendable) industry, and economy of means; their frugality, and perhaps even parsimony in expenditures, are indispensable to success in their situation, while our opposite (and very blamable) defects and errors are permitted to act, without being entirely and generally ruinous, only because of our greater resources. Improving and judicious farming in lower Virginia, (and in similar circumstances elsewhere,) with even but a moderate share of good management and economy, is certainly more profitable than on any lands of the old States north of Mason's and Dixon's line. And among the several elements which constitute this capacity for higher profits for our farming, one of the three most important is the employment of slave labor. The other two elements, of great importance, are the present low price of land, (a great evil to agricultural progress, it is true, but not less a benefit to a purchaser and new possessor,) and the facility and cheapness of

enriching the land by mineral manures and other auxiliary means.

CALX.

#### FALL OF RAIN FOR THE YEARS 1850 AND 1851.

We are much obliged to our correspondent for the following contribution. We think a series of such observations would be of very decided value, and shall always insert them with pleasure.—ED. SO. PL.

For the Southern Planter.

It is interesting to the farmer, as well as to the meteorologist, to know how much rain falls during the year. Annexed is a statement of such for the years 1850 and 1851:

RAINS.		
1850—January,	- -	3 24 inches.
“ February,	- -	1.49 “
“ March,	- -	1.99 “
“ April,	- -	3.29 “
“ May,	- -	4.66 “
“ June,	- -	0.98 “
“ July,	- -	6.33 “
“ August,	- -	4.73 “
“ September,	- -	4.05 “
“ October,	- -	1.61 “
“ November,	- -	2.68 “
“ December,	- -	2.90 “
Total,		37.95 inches.

SNOWS.		
1850.—January 14,	8 to 10	inches deep.
“ March 28,	6 to 8	“ “
“ December 31,	3 3	“ “
Total,		17 to 21 inches.

HEAVY RAINS.		
1850.—May 15,	1.08	inches.
“ May 26,	1.50	“
“ July 19,	4.21	“ 36 hours.
“ August 25,	3.69	“ 14 “
“ Sept'r 7,	1.56	“
“ October 18,	1.48	“
“ Nov. 30,	1.00	“
“ Dec. 7,	1.90	“

RAINS.		
1851.—January,	- -	0.43 inches.
“ February,	- -	3.80 “
“ March,	- -	3.73 “
“ April,	- -	3.73½ “
“ May,	- -	1.36 “
“ June,	- -	3.15½ “
“ July,	- -	2.87 “
“ August,	- -	2.05 “
“ September,	- -	1.25 “
“ October,	- -	1.27 “
“ November,	- -	2.25 “
“ December,	- -	1.03 “
Total,		26.93 inches.

## SNOWS.

1851.—May 5,	1 to 2 inches deep.
“ December 22,	8 to 9 “ “
Total, 9 to 11 inches.	

## HEAVY RAINS.

1851.—Feb. 21,	1.72 inch.	
“ March 8,	1.70 “	3 days.
“ April 8,	1.47 “	
“ May 5,	1.03 “	(snow.)
“ June 22,	2.41 “	(2 in. fell in half an hour, doing much damage.)
“ July 31,	1.50 “	24 hours, (a most refreshing, serviceable rain.)
“ Nov. 15,	1.07 “	

My rain gauge is Grasley's Patent (English.)

The present winter thus far resembles strongly the winter of 1845-6. On the 6th and 13th of December, 1845, the thermometer was 19 degrees; on the 12th and 13th we cut ice four inches thick; on the 20th, thermometer 13 degrees; next morning, 12 degrees, and the ice four to five inches thick; the Rappahannock river was closed by ice for ten days; snow fell on the 16th, and lasted two weeks. On the 24th of January mercury fell to 11 degrees; snow was six inches deep, and ice made to the thickness of three inches; the navigation of the river stopped again. 27th of February thermometer 12 degrees—snowed on the 28th; 1st and 2d of March, when the average depth exceeded one foot, the roads were made impassable by high drifts—no mails arrived for a week; the snow disappeared finally on the 14th.

On the 16th of December, 1851, the thermometer was 16 degrees; next morning, 14 degrees; 18th and 19th, 11 degrees, when we cut ice four and a half to five inches thick; on the 22d snow fell to the depth of eight to nine inches; 24th, thermometer 6 degrees—the river is closed, and continued until the 30th—the ice on it having been about four inches thick. On the 6th inst. snow fell three to four inches deep; on the 8th thermometer 14 degrees; this morning 21 degrees. There is fine sleighing now, as also during nearly all of Christmas week.

E. T. T.

Powhatan Hill, King George Co. Jan. 12.

## LIME BURNING AND ITS APPLICATION TO LAND IN PENNSYLVANIA.

We are happy to announce that Augusta has “resumed payment,” as will be seen by the two subjoined excellent letters of Col. J. Marshall McCue, of that fine county. He has “broken the ice” in fine style, and now that “navigation is opened,” we hope for many cargoes of rich freight from old Augusta.

The subject of which he treats in so clear and satisfactory a mode, the burning of lime, is an important one to some of his countrymen, those especially on the line of the Central Rail Road. The time is not far distant when that fertilizer will be transported east through the tunnel. On many farms in this section now, perhaps on all except the red land proper—that is, the land provincially known as the southwest mountain land—lime is the one thing needful, or rather the thing most needful. We presume there is not a foot of gray land within the above limits that would not repay a liberal dressing of lime by a double product. Certainly, if the slate formations do not respond to it in that ratio, they are an exception to all the lands of their class that we ever heard of. And many a gravelly knoll now barren and verdureless can be made, by the aid of this benignant mineral, to blossom as the rose.

LANCASTER, PA. January 20, 1852.

Dear Planter,—Some months ago I received a note requesting me to employ a leisure moment in writing something for thy columns, and common politeness made it requisite that I would ere this have acknowledged its reception, yet from various causes it has been delayed. Candor, however, compels me to say, that a want of experience in writing anything for publication, and particularly for an agricultural paper, has had much to do with my silence. As I have strayed off here, for a few days from Baltimore, where business carried me, and as the main object I had in coming into this, the best *furned* region of Pennsylvania, was to get some information about agriculture, I will employ a moment in giving you some of my observations. I spent a day or two in the counties of Cumberland and Dauphin, and in the former, examined the mode of construction of their lime kilns, and made many enquiries about the mode of its application to the land. Through the kindness of a friend, I visited the farm of Mr. Robert Bryson, a gentleman well known to the agricultural public, from a most interesting, and, I think, a truthful report, made by the committee of the Cumberland County Agricultural Society, a few years ago, of his farm—termed by them the “model farm” of this part of the State. He has been very extensively engaged in burning lime for some time, and has at least half a dozen large permanent kilns, capable of burning from five hundred to fourteen hundred bushels of lime each. They are situated on the edge of his farm, by the side of a public road, and where the ground falls off in such way as to enable him to bury the kilns in the bank, the top being level with the surface of

The ground above, thus making it easy to haul the stone and coal to the side, whence they are wheeled over the mouth by barrows and dropped into the kiln—and the eye or mouth from which the lime is taken, or if burned with wood, where it is deposited and is thus convenient to be used, is level with and by the roadside, whence the lime is easily loaded either into sleds or wagons. There being snow on the ground, there were several farmers who had come with their sleds a distance of ten and twelve miles, for lime to apply to their lands. The price at the kilns, in the rock or unslaked state, is from seven to ten cents per bushel. Mr. B. uses both coal and wood in burning, and the fine or inferior coal, the cheapest, is well adapted to the purpose. A ton of coal, in a properly constructed kiln, is considered sufficient to make from one hundred and twenty to one hundred and fifty bushels of lime. The permanent kiln is made with an opening slightly smaller at the bottom than above, and is then built up straight. The outside of the kiln may be built of limestone, (or any other kind of stone,) and the inside lining is of brick, or of any stone that will resist fire. Bricks that are made purely of clay, that is free from sand, Mr. B. informs me, are preferred, as those made in the common way will, under the intense heat, melt and run, and in a short time need replacing. He lines some of his kilns, as well as builds the eyes and the portions most exposed to the fire, with a sandstone often found in our mountains in Virginia, and used by iron-men in making hearths for their furnaces.

I ought to have mentioned that the general shape of the kiln is slightly removed from the round—is somewhat oblong. Mr. B. prefers to have a small arch built up in the bottom with brick, with holes left in it for the fire to get up and kindle the coal. Under this arch is placed a quantity of dry wood sufficient to ignite the coal, which is placed in alternate layers, with stone from the bottom to the top of the kiln. Lime is made much more rapidly in this way than with wood: Mr. B. having filled up his kiln, fired it and emptied it *all in one week*. He does this frequently and without any extraordinary exertion. The stone is not broken, as I had supposed necessary, very fine, but may be put in in blocks weighing from twenty five to fifty pounds, and will be thoroughly burned, and he thinks makes a *better* lime than when it has been broken small, as the excessive heat has not *burned the lime too much*. Mr. B. has also one or two *drawn kilns*, as they are termed. They are built as the others, except that in the bottom, instead of the arch described, he uses a few cross bars of iron, and then three or four longitudinal bars that can be drawn out. After the kiln has been fired and the lower part sufficiently burned, these bars, turned up at the end, can be drawn out, and the lime drawn down with a hook, and, at the same time, fresh coal and stone can be put in the kiln above, so that the process of *taking out lime and filling up the kiln* may

go on at the same time. This is found a convenience sometimes, when he is hurried for lime; yet in a general way, he prefers the plan of filling up and burning a kiln without disturbing it. Another plan that is much used now in this and other counties here, where lime is burned, is to select a spot in the field where the stone is quarried, a firm sod is preferred, and to dig out as many small trenches as you think necessary for the size of the kiln, and over these turn arches with the stone you are going to burn, and then build up a kiln with alternate layers of stone and coal, drawing it in gradually towards the top, making it of a size proportioned to the quantity you desire to burn. They then plough up some earth around it, pour some water upon it and tramp it awhile with horses, and with the mud plaster carefully the outside of the kiln to retain the heat. The trenches or arches are filled with dry wood, (old rails are fine) which ignites the coal, and if the weather is suitable, dry and calm, the stone burns out perfectly, leaving but little "core," as they term that part of the kiln not thoroughly burned. This is becoming a popular method of burning lime, from its simplicity, economy and convenience. Almost any one can construct a kiln of this kind—it can be done in the field where you desire to use it, thus serving the double purpose of removing ugly breaks from your field that obstruct the plough, and saving labor in hauling the stone to a permanent kiln, and having the lime near the place where you desire to spread it. Much depends on the weather at the time you wish to burn, as to the productiveness of the kiln. If there is much wind, it chills the side of the kiln against which it blows, thus preventing its burning out, and if damp and cloudy, it has the same effect on all parts of the kiln. For the reason of uncertainty, Mr. Bryson thinks there is much more economy in the permanent kiln.

*As to the Application.* As soon as the kiln is sufficiently cool, the lime is carried out in wagons or sleds to the field where it is to be spread, and if put on land intended for corn, or small grain, the ground has first to be marked off with the plough or stakes, into squares and the lime placed in neat piles in the middle of those squares, the ground being made smooth under the piles, lest if rough *too much* remains in *that spot*, to the injury of the ground. If the weather is dry and the farmer is anxious to spread the lime directly, he will not await the tedious process of slaking by the atmosphere, but with a few barrels or hogsheads, on a wagon or slide, will carry out water and sprinkle the piles. This is often done here, as they much prefer to spread it in the flour, as they term it, the state it is in immediately after slaking, before any rain has fallen on it. As to the quantity per acre, that will vary with circumstances. The maximum quantity in Cumberland and this county, (Lancaster,) I think is about one hundred bushels per acre. The time and mode of its application is various.

Some prefer putting it on in the spring, on land designed for corn, after the ground is ploughed, and harrow it so as to mix it properly with the soil. Others put it on in the fall on ground intended for wheat, and others again spread it on grass land. An intelligent farmer, I met with, much prefers this latter mode of applying it, and on ground designed for corn a year or two after its application. Some compost it, when they want its immediate action. On thin land the quantity must be proportioned to quality. Too much is injurious. On the thin hill land skirting this and Cumberland counties, the fertility has been increased beyond the belief of any but an eye-witness. I have exhausted my paper and doubtless the patience of your readers, and will finish with the promise to write, it may be to annoy you, again.

J. MARSHALL McCUE.

PHILADELPHIA, February 4, 1852.

*Editor of the Southern Planter.*—As introductory to what follows, suffer me to congratulate you on the most appropriate New Year's Address you sent forth with the January number of the Planter. Would that the advice therein given may be followed! As german to agricultural improvement, I will invite your readers to scan carefully the last report of the Board of Public Works to the Legislature, which sets forth in a clear and condensed manner the situation of the internal improvements of the State. It is a very able State paper, and in the main meets my views. Let the Legislature act in the premises promptly, and as becomes statesmen, having the best interests of the Old Commonwealth at heart, discard all local and sectional jealousies, and appropriate liberally to the great lines of improvement. Then will the agricultural and mechanical interests of the State receive the impetus, so long waited for. Immigration, instead of emigration, will follow—population increase, the worn-out lands will be reclaimed—education will be diffused, the plough and loom and anvil will approach each other, and the consumer will furnish to the producer the *best of all markets—a home one.*

I promised to say something of the use of lime, as applied in the counties of Lancaster and Chester to the land—Lancaster being one of the largest “feeding” counties in the State, grows necessarily a great quantity of grain. All her *best* farmers use lime, when they can procure it within a reasonable distance. Our farmers in the Valley of Virginia, who have the limestone so abundant, would not agree with those of Lancaster, as to what constituted a *reasonable* distance, viz: ten and fifteen miles. The mode of application was stated in my first letter. The use of salt finds great favor with those who have used it in slaking, as it fixes some of the properties of the lime most beneficial to vegetation. A small quantity of salt dissolved in the water will answer. The farmer prefers to spread the lime immediately

after it is slaked and in the flour state, as it is termed. Care must be taken to have the spot on which the pile is thrown at first, smooth, lest too much remain in the uneven places, and do injury to the crop. It is then carefully mixed with the soil by harrowing or shovelling in the wheat, if it is in the fall. One hundred bushels per acre is the maximum quantity used on any land, and that is too much on land that is thin. On land of this description, the majority concur in saying that it is best to mix the lime with the scrapings of the barn-yard, of fence corners, or swamp muck, either of which is preferable to fresh stable manure—and when thus mixed, the benefit to the crop seems immediate, otherwise years will elapse before its good effects are visible. Lands of a slaty character, or having much sand in them, with a good clay subsoil, show the beneficial effects of lime sooner than any other.

The hill lands along the southern border of Lancaster and Chester, near the Blue Ridge, called here the South Mountain, which some years since were considered almost worthless, and were bought at from five to ten dollars per acre, by the judicious use of lime, are rendered exceedingly productive and now readily command thirty and forty dollars. On meadow lands in both counties, and the grazing lands of Chester, lime is applied on the sod, in quantities varying from fifty to one hundred bushels per acre. The benefits are perceptible to the most casual observer; and it has been observed here that cattle fatten much better on lands that are well limed than on those that have been neglected. It is entirely in accordance with reason and common sense that it is so. Mr. Colman, in his Agricultural Tour, speaks of the repeated confirmations of this truth in England, by the experiments and observations of many of the most experienced agriculturists. An intelligent farmer of Loudoun county, who has been engaged in grazing for thirty years or more, in a conversation with me on this subject, several weeks since, confirmed its truth by his experience. My own observation in the grazing region in the Valley of Virginia, has satisfied me that it is more difficult every year to fatten cattle upon our old sod lands, which have been in grass for many years. Certain is it that every year is decreasing the phosphates and biphosphates in the soil, and artificial means must be used to restore them. Would not a series of experiments made by some of our intelligent practical graziers be exceedingly interesting, as tending to test the truth of this theory in the Valley?

As I remarked before, some farmers put the lime on lands intended for corn, yet there are others, and probably the larger number, who prefer to let their corn lands remain for oats, and apply the lime before putting in oats. And here I could but contrast what I have always depreicated with us as a most slovenly and un-farmer-like habit, of seeding our corn lands in wheat with the corn stalks *jutting up* all over

the field, to the great annoyance of the cradler and reaper, and an eye-sore to one who has seen and compared such seeding with the better plan in existence here. Besides, how seldom is it you ever see even an *ordinary* crop of wheat following a *good* crop of corn? You find the farmers of the Valley of Virginia excusing themselves for neglecting to use lime by saying, that "it is needless for us to apply lime to our lands, now so strongly impregnated with it, the stone being every where so abundant." This is a lame apology, and one that is dictated by prejudice—I had almost said ignorance, and which is every day refuted by the experience of the intelligent, thrifty and industrious farmers of Lancaster and Chester. The farmer here, who neglects to use lime, where it is at all within his reach, is regarded by his neighbors as unthrifty and indolent, and who will inevitably fall in the rear in every thing that is characteristic of a judicious man. Lime is estimated by the farmers here to hold the place among manures, which is given to calomel in the *materia medica*, by the allopathic physician. It is the *Samson* among the fertilizers. I had not designed to spin this letter out to such lengths, and with the hope that even *one* among our farmers may be encouraged to commence the use of lime, I will close, by wishing you all the success in the good cause to which you are devoting your time that you can desire.

Truly yours;

J. M. M.

The writer of the following communication is not only one of the closest calculators, but one of the soundest practical farmers of our acquaintance. In the application of guano, did our land admit of its use, we know no one to whom we should prefer as a guide to Mr. Fife, and therefore no one to whom we would more confidently recommend the guano *ist*—if we may coin a word for the occasion.

The casual remarks too, the *obiter dicta*, as the lawyers would say, are also worthy of consideration, especially the views as to the proper mode of seeding wheat.—Ed. So. PL.

For the Southern Planter.

#### ON THE USE OF GUANO AND ITS PERMANENCY.

*Mr. Editor*.—It is supposed, from the time I have been using guano, and the quantity I have put in every year with wheat, that by this time I ought to be able to give some information as to its use, but especially its permanency as a manure. In answer to a good many letters which I have received within a few months past, I will give my own practice in the use of

it, not doubting but that many farmers understand its use better than I do, although they may have used less of it than I have done.

#### MANNER OF PREPARING IT FOR SOWING.

Having sifted the guano, we take what will not pass through the sieve, and spreading it on the barn-floor, rub it down with a log drawn by a horse—the log is five feet long, with a pin driven into each end, when a log chain is stretched from one pin to the other, to the centre of which the swingletree is fastened, and thus a breadth of five feet is rubbed down everytime the horse goes round—soon making it fine enough to be sown. I have never, but once, used plaster with it, supposing it best to apply the plaster to the surface after the wheat is sown on the ground, that if it were true that plaster prevented the escape of ammonia, then it would be the best policy to place the sentinel at the door, where, if Liebig tells the truth, he would work both ways, and the guano be undisturbed by his operations. The quantity used is about two hundred pounds per acre.

#### THE LAND BEST ADAPTED FOR IT.

The finer land can be made, previous to the sowing of guano with wheat, the better. For this purpose I plough up as much land as I can for oats. After sowing the oats in the spring, I cover over all the galled places with straw, taking care not to leave it too thick, but spreading it evenly on the ground, so that the oats may grow up through the straw. This will save the land from washing, supply a little organic matter to the land, and secure the wheat and clover. Land can always, in the driest weather, be ploughed after oats, and, next to tobacco, leaves the best till for wheat. Just before sowing, I either run the harrow over the land, or the above mentioned log.

#### MANNER OF PUTTING IN WHEAT AND GUANO.

For reasons which I shall give, I always plough in both wheat and guano with a one horse plough, and leave the land, as the plough leaves it, undisturbed by either harrow or roller. I begin laying off the land eighteen feet from the outside, all round the field, so that when sowed, the ploughs can go on without leaving any furrow till they finish the field in the centre, thus by going twice in the eighteen feet, the sower can manage to cast the guano nine feet at a throw; and, generally speaking, we can turn the land down the hill all the way, till we finish the field. Any person can observe, after a rain, that a harrow has left a good deal of wheat uncovered: for the same reason it will leave the guano uncovered. It is too costly an article not to get all the benefit from it we can; and it is only when covered over with the earth, in our climate, that we can expect its salts to be detained for food to plants.—On the other hand, to turn it down with a three horse plough, or even a two horse plough,

where there is so much clay as there is in our land, is to place it where it will be detained by the clay immediately in contact with it. And this, perhaps, may account for its failure on lands which not being equally balanced, do not admit of its influence being diffused through the soil. First, then, after covering the wheat and guano with a one horse plough, (and both ought to be covered,) it is unreasonable to be uncovering them, which a harrow is sure, in some measure, to do. Second. No land runs together in the fall and winter so soon as land made fine with a harrow. Let any one take two lots in a garden, in the fall, by way of experiment; let him dig them both, leaving one raked fine, the other left rough. In the spring the advantages will be vastly in favor of the last, while the other must be dug again, or it will be in bad tilth all the summer. Indeed, if there be any truth in the atmosphere acting and imparting to it a supply of food for plants, then a rounding surface must be preferable to a smooth one. The one being friable, the other crusted over—the one with its pores all open, the other glazed and repelling the gases as they approach for admission. Third. Complaints are often made that clover seed fails on wheat lands; and this is either ascribed to the late frosts killing it in the spring, or to the drought of summer, drying it up, and I consider it a serious loss to the farmer who has used guano to fail in his clover crop. Now the advantage is altogether in favor of land left as the plough leaves it over that which is harrowed, both as it regards drought and frosts. The seed has not only a safe deposit on a friable soil, but the crumbling edges protect it in a measure from cold and drought. I can safely say where I have put plenty of cloverseed, though there be mould at all, I have rarely failed in clover. Fourth. Rains do not injure a surface left by the plough as they do lands left by the harrow. Water in falling on the one surface percolates downward into the subsoil; in the other it runs off like water from a duck's back. It has always been the experience of our most observing farmers, aside from the use of guano, that wheat grows much better when put in with the shovel plough than by harrowing. What then, it may be asked, makes the farmer put in wheat with a harrow? Because it takes longer time to put it in with the plough in the first place, and because it looks better in the winter and fall, in the second. To the first we have nothing to say, only let that on which the guano is put be ploughed in and left to get the advantage, both to the wheat and clover. To the other, we reply, it is only the looks; the smooth surface shows you every inch. It is as good on the ploughed land, but the surface hides it from you till spring advances, when it will tiller and grow and yield beyond harrowed wheat; and when the wheat is off the clover is sure to follow; whereas, in all likelihood, the smooth surface shows only here and there a bunch, and that in a sickly condition.

I may here remark that if any person has succeeded in making a perfect gall rich with guano they have done more with it than I can. To see any permanent benefit there must be organic matter sufficient to form at least some mould. If the soil be there and be poor its poverty has arisen from the fact of taking out and returning nothing. In our poor soils the great deficiency arises from the crops having taken out what was never in them to any great extent, viz: ammonia and the phosphate of lime. Now it appears that the farmer who has to purchase these two articles cannot get them cheaper in any other form than that of guano: and as ammonia sells at eight times more money than phosphate of lime, it follows that the guano that has the largest amount of ammonia in it must be the best, and of course ought to sell the highest. It would appear then that if these two things are put back into the soil we are supplying it with the food of plants of which it had been deprived by previous cropping. This, then, being admitted, it would necessarily follow that the crop of wheat could not take up the amount of both these articles. Say that the two hundred pounds of guano had only twenty-six pounds of ammonia and between seventy and eighty pounds of the phosphates, no one crop would require all to mature it. This might be a sufficient answer as it regards the permanency of guano.

As I have had a good deal of experience in buying manures I can say that if the same amount of money is laid out in buying guano that would be required in buying stable manure to go over an acre, the growth after guano would be equal to the stable manure, while in all probability the wheat would be better on the guanoed acre. Now if they were only both equal in their effects still the labor is greatly in favor of the guano. It was with difficulty, when I lived at Rock Hill, that I could haul from Charlottesville, though less than a mile distant, enough manure to go over eight acres of land in one year. Now with less labor I can go over fifty acres in one year, and this year have gone over ninety or one hundred acres. But in buying stable manure you very often get a worthless article. The ammonia all driven off by fire-fanging, so that you might as well put as much chaff on the land.

That which will lead the farmer to suppose that guano is not a permanent manure will, I expect, always exist. It may be necessary to explain this. A farmer buys two tons of guano which he puts on twenty acres of land: the balance of the field he sows in wheat without guano. On this field he sows clover seed and as soon as the wheat is taken off, hogs, sheep and cows are turned in. To his great surprise he sees next year as much growing where there was no guano as where he put his one hundred pounds, and draws the conclusion that the guano does not last over the first crop. What can the matter be? Why, plainly this:

every thing from a pig to a steer knows where sweet rich grass grows, and there they continue until every thing is eaten off, and the poaching finishes the soil by knocking the life out of it. The other part is luxuriant in briars and sassafras bushes which neither steer, cow nor sheep will touch while a spire remains that has been guanoed. Now how is he to proceed in the use of guano when the first crop barely pays him, and wheat at eighty cents will give him no profit at all. It can only be done by keeping stock off and giving back to the field the crop of clover, which, in return, may pay him in the crop of corn. In this way he may go on improving his land by degrees with the use of guano, unless his land be like that in the neighborhood of Tarnaway Castle, built by Thomas Randolph, the nephew of Bruce, altogether sand on which nothing will grow. It is the scene of a great part of the tragedy of Macbeth where he and Banquo met the weird sisters that gave him so many fatal promises. But from my own experience no land is more certain of improving under the least attention than our Albemarle lands. Should the land be clay it must be made fine before guano is applied, and both guano and wheat put in near the surface. If it be light, loamy land I have put both in with a two-horse plough, and it does very well. My only fear with regard to guano is that we shall get an article that will be destitute of the amount of ammonia which is its chief value. If it be said to come from Peru it is marked No. 1, regardless of the amount of ammonia. When Dr. Ure first analyzed it, he found seventeen per cent. of ammonia in it, but now it is often sold as No. 1, when less than thirteen per cent. is found in it. The quantity of stable manure which I have put on an acre of land and hauled from town at the cost of a dollar a load, (the body of the waggon holding fifty bushels,) was twelve loads; this would require two hands and two horses for two days. In short days they could not do it. The expense was at least, by the time it was spread, eighteen dollars an acre; and, taking one lot of manure with another, three hundred pounds of guano was equal for the wheat crop, if not better, and though clover after it might not be altogether so good, yet the difference between seven dollars and fifty cents and eighteen dollars is immense; and allowing nothing for the expense of hauling, yet the difference between seven dollars and fifty cents and twelve dollars is no inconsiderable item in favor of guano. Besides all this, unless the roads were in fine condition two horses could not haul a full load, and consequently you have to pay for what is taken by the load, whether the waggon be full or not, and it would sometimes require fourteen loads to go over an acre at an expense of fourteen dollars, without counting the wear and tear of teams and the time lost. In short, I have never seen the time that I had not full employment for my team on the farm without going after manure, nor a day when I could

not get two dollars and fifty cents for a two-horse waggon and driver, if I should choose to hire them out. I think I have kept within bounds when I have made the cost of manuring an acre of land amount to eighteen dollars; and even at that price, unless the manure was very good, the land would not be enriched; and when it is considered that stable manure as soon as it is thrown out of the stable throws off, by the heat that is generated during fermentation, its most valuable ingredient, it becomes, of all manures, the most expensive at the present prices. Now as phosphoric acid is generally in less quantity in the soil than any other substance necessary to the nutrition of plants, and this ingredient is in large abundance in Peruvian guano, it follows that even at the very high price of guano it is by far the cheapest manure that can be bought. And it seems to me to be evident that if the land possess the power to detain the ammonia that no one crop of wheat can take out the amount of ammonia that is contained in two hundred pounds of guano, and consequently, the following clover crop must be benefited. So I have found it. Moreover, I have found on poor land, by the use of three hundred pounds of guano, a large crop of wheat the first year, and a heavy crop of timothy the second; but then not a hoof was allowed to touch it. I have also, where two hundred and fifty pounds were sown on poor land, got a large crop of wheat, and the second year cut a fine crop of clover.

JAMES FIFE.

For the Southern Planter.

#### HOLLOW-HORN.

*Mr. Editor.*—I have just read the article of our friend, Dr. Minor, on Hollow-Horn. If he had had the same experience in the disease that I have he would have told you that in very acute cases free bleeding was the only efficient remedy, and that cloths dipped in spirits of turpentine and laid just by or on the crest, and well burned with a hot iron, (even to making sores,) was a much more powerful adjunct than a poultice of mullein and bran. The case mentioned by him was by no means acute in the first instance, and would, probably, have yielded to an application of spirits of turpentine. Had it been an acute case the cow would have fallen down and remained in the same place until relieved by bleeding or death;\* for but little reliance is to be placed in boring or sawing the horns, and I think had best be let alone entirely, as maggots some-

\* When the cow is thought to be entirely cured in one of these severe cases it should never be penned again at night during that summer, as for a long time it is unable to stand the heat of the sun, and only feeds late in the evening and at night, retiring to the best shade it can find during the day.

times get in and do irreparable injury.\* The bolus of meal, herrings or frogs, may also be dispensed with.

The Doctor has, without knowing it, furnished your readers with the best prescription that I have ever known tried for the treatment of the bloody murrain, or distemper, as it is sometimes called in the counties of Hanover, &c. For seven or eight years that I lived in that region of country I used the bleeding and Glauber salts with great success in the treatment of that terrible disease.

I have written the above simply for the purpose of adding my experience to that of our friend, who lays down the principle of treating the disease in such a manner as to leave no doubt of its correctness.

THOMAS GARLAND.

January 19, 1852.

For the Southern Planter.

### TOMATO PLANTS.

*Mr. Editor*.—I have been often asked for my method of raising tomato plants. In the small way for twenty-five years I have never failed to raise as many as I have wanted, and often too large to plant before I could venture to transplant them, (say from ten to fifteen inches high,) compelling me to raise my glass frame, as they should never touch the glass when there is frost. I make a frame or box three feet square, well put together, of good plank, one and a half or one and a quarter inches thick, and ten or twelve inches wide, and as it is likely to spring by warping, small bits of tin may be sprigged on the corners of this frame. I fit another on this, made of three-quarter inch plank of same size from out to out—twelve inches deep on one side and six inches deep on the opposite side, sloped off to receive a glass frame or sash. I then nail strips upon the corners of the bottom frame, (two at each corner,) to extend high enough up to receive the top frame and sash, forming a rabbit to keep them in place. I also nail strips around the top of bottom frame, extending one and a half inches above it, to prevent air from passing through the joints where the two bottom frames meet. My frames now being ready, (I need not give any description of the sash or glass frame to go on top,) between the 1st and 10th of March (not before, or plants will be too forward,) I select some spot in my garden, fair to the sun, lay down my first frame on a level spot and

\* Frequent observation has convinced me that in all cases of general fever or sickness the cow ceases to ruminate, not only because of the sickness, but also because it ceases to gather the food on which to ruminate. The observation is perfectly correct, that when the animal is relieved the cud will be restored as a matter of course.

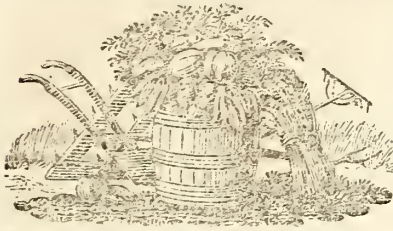
fill it with long, rough, fresh stable manure, treading or pressing it in all over alike, but not too hard; then two persons raise the box gradually, keeping it level, until the bottom is nearly to the top of the manure, then fill it as before, and so on until I get it as high as I wish it, say three feet, and then raise it again so as to leave a space of about seven inches. I then (in order to prevent the box from slipping down) drive four sharp sticks, eighteen inches long, one on each side about the middle, and close under the frame, into the manure, turning the points considerably down, say a slant of twenty-five or thirty degrees, so that as the manure settles all may settle together. I next fill up the box five inches more with some rich virgin earth from the woods, (which is light and has no grass seed in it,) making this very fine, and lay it off in drills six inches apart, and in these drills I carefully put three seed in a place, two inches apart; (four inches would be better, but I should not have plants enough,) covering them very shallow, or they will be too long coming up; they should be up in five or six days. Now put on the next frame with low side to the south-east, and then put on your glass frame. Next morning I get from my farm-pen a watering pot of fluid which has drained from the manure, and put that on my bed. It must be closely attended to, otherwise it may, after two or three days, become so hot that it may kill the germ when sprouting or the plants after they are up. If too warm raise the glass frame in front a few inches, putting something under it. As soon as the plants are fully up I take out one at a time, until I leave but one in a place, and if any place is deficient I supply with one I draw out. I water my bed every night, and in the morning, (after the plants are up,) if the day is fair and tolerably pleasant, about eight or nine o'clock I take the glass frame entirely off, putting it on again in the evening; and as they grow up and begin to have four or six leaves, in a mild day, if the sun is shining, I take off both of the top frames. When they get four or five inches high I disregard the wind, unless it be very cold, or unless it blows hard enough to prostrate the plants. At this age of the plants I dust fine plaster over them occasionally in the morning, when they are moist; and I also loosen the dirt between the drills and with my hands carefully hill up or put dirt to the plants, and then fill up the space I have made between the drills with a mixture of equal parts of the same sort of earth the bed is made of and leached ashes. By thus exposing the plants to sun and air I find myself soon in possession of one hundred and eight fine, healthy, strong, vigorous plants, looking as hardy, and in every way as luxuriant, as if grown on a rich soil in a warm season—very unlike some I have seen from hot-beds, sown broadcast, in patches thick and thin, and so very feeble and slender, and so tender that it seems difficult to get them to live when transplanted; whereas, my plants seldom droop at



all, if care is taken in transplanting them. But, like every thing else, they require constant attention to insure success. I *never* leave my hot bed open at night, no matter how warm; and I never permit a hard shower of rain to fall on the plants. To insure them from the cut-worm, as I set them out I wrap a small bit of paper around the stalk, loosely tied with a yarn string, putting dirt a little above the lower edge of the paper. I omitted to state I always cover my glass frame with thin plank to guard against cold, storms and other accidents.

W. TIMBERLAKE.

*Belle Air, Feb. 13, 1852.*



## THE SOUTHERN PLANTER.

RICHMOND, MARCH, 1852.

### TERMS.

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## VIRGINIA STATE AGRICULTURAL CONVENTION.

We devote all the space we can spare to the proceedings of the Agricultural Convention which assembled on Thursday, the 19th of February, and adjourned on the following Saturday. The Convention was not large, and but few counties were represented. Albemarle had some thirty members—no other county more than two or three, and the balance, being by far the larger portion of the State, none at all. The farmers of Virginia seem to be asleep. Of the many, we think a majority of the body, who are in the Legislature a very small portion attended. But still the men who did come, came to *work*. They were nothing daunted by the thinness of attendance, because they knew that all the farmers of the State would sanction their efforts, and because they hoped that the Legislature would have intelligence enough to perceive and liberality enough to satisfy the wants of agriculture. Whether or not they have judged rightly in this latter regard remains to be seen. A bill, drawn in accordance with the wishes and instructions of the Convention, has been offered as a substitute for the bill now before the House, by Mr. Stuart of Fairfax. It was not offered in time for us to publish it, nor is it necessary, as it will, most probably, be amended, or rather altered. We may say, however, that it provides for an appropriation by the State, conditioned upon an equal individual contribution, provided, that the latter shall not be less than five hundred dollars; and, provided, that the State subscription shall not exceed in any one year fifteen thousand dollars. This latter amount it is not hoped that we can obtain since we cannot yet venture to predict an individual subscription of that sum. But in a few years things will work better, and when our machinery is perfected we shall expect that many thousands will contribute to swell the ranks of the Society. It is proposed to expend this money in premiums, based on principles of real merit, on inquiries into the agricultural condition of Virginia, and collection of statistical facts, and on matters of science connected with agricultural improvement. We hope that this subject will be duly considered by our readers, and if they approve of such a bill that they will at once write to

their respective delegates and urge them to vote for it, and give them solid encouragement to do it. The taxes are to be raised this winter, and the Legislature is very tender-footed on the subject of appropriations. It is, perhaps, unfortunate that it was necessary to make our application at this time, but not to do it now would be to defer it for two years longer, and such is the condition of agriculture in Virginia at this time, that not a moment should be lost in obtaining for it the aid it needs so much. To help the members out of their extremity we propose to the farmers to pledge themselves that whenever in any county the re-election of its delegate is objected to on this ground that they will vote for such candidate *regardless of his politics*. If it is necessary to raise a tax for our benefit, let it be done. It will be our duty to see that no demagogue gets into public life in opposition to our interests.

The President of the Society is EDMUND RUFFIN of Hanover. His energy and devotion to agriculture, and his distinguished services, guarantee a faithful discharge of his duties.

The Society already numbers (24th of February) one hundred and twelve members, and we have no doubt that if proper exertions are made we can easily induce some thousands to subscribe.

On Thursday evening Mr. Willoughby Newton, himself a distinguished farmer, made a very handsome address to a large audience in the Hall of the House of Delegates. We regret that we have no room to insert it. Its object was to show to the farmers the unsurpassed natural advantages of Virginia, and the skilful manner in which a portion of her people had availed themselves of them. On the first branch of the subject we fully agreed with Mr. Newton, on the last, without disputing at all his individual achievements, which we believe to be remarkable, or those of his section of country, Tide Water Virginia, which are certainly very considerable and very creditable, we yet incline to think his picture too favorable, whether absolutely or relatively considered. But in this candid criticism, we would not be thought to detract at all from the ability or patriotism of our distinguished friend.

At the meeting of the Executive Committee which is to be held on the 19th of March, a Constitution will be reported, to be prepared in accordance with the instructions of the Society. We shall endeavor to lay it before our readers.

#### CLOVER DOES NOT EXHAUST LAND.

We have been asked once or twice what we meant by saying that clover exhausted land, and have heard that some of our friends have been asked the same question. We reply that we have not said so, and must have expressed ourselves very felicitously to have conveyed such an impression. We said, or meant to say, in the article in our February number, on "Farming in Tide Water Virginia," that *the cultivation of clover, particularly when attended with the use of time in rapid succession and alternation with the usual cereals, if unaided by the use of other manures*, produced ultimate exhaustion, because the clover afforded the food for the wheat, for instance, which food being abstracted by the wheat, must, in time, become deficient in the soil unless replaced by other means. So that *the wheat is the exhauster* and not the clover. The lands in Albemarle have been clovered some forty years, and clover is still used among us. In fact, as we jocosely but truthfully observed to a friend, some time since, there is no man in Albemarle, that goes into good society, who does not sow clover seed. We shall return to this point again when we have more leisure. At present we are pretty well used up by the labors of the Convention, and beg to be excused.

For the Southern Planter.

#### WHEAT-REAPERS—SAUNDERS' WINNER.

*Mr. Editor*.—Some ten years ago I obtained possession of an old tobacco plantation which had been subjected pretty thoroughly to the common process by which the best lands of the tobacco region have been impoverished. The last proprietor, however, had practised an improving method and had reclaimed a good portion of the exhausted land, chiefly by means of farm-yard and stable manure. Adopting his practice I continued to strip the little forest land of its annual deposit of leaves, to make

as much manure as possible; and by composting these in the pens and yards with cornstalks, I contrived not only to keep up the tobacco lots, but also to enlarge them. But the obvious effect of this practice was the general, though gradual, deterioration of forest land and cornfields; and about five years ago I attempted to increase the crop of wheat, as an essential part of a system of more rapid and extensive improvement. Since that time this crop has been doubled, and the land is manifestly improved, while its average income is certainly not diminished. This has been effected chiefly by deeper ploughing, by manuring new surfaces for tobacco, and by a limited use of guano on exhausted land. Clover and plaster have been used, but with partial success; and I am disposed to believe that until I can afford to apply large quantities of lime, these agents will not prove very profitable. Guano has been used cautiously. In the autumn of 1849 about half a ton was ploughed in on some six acres of the poorest land, and seven bushels of wheat sowed upon it. The crop was injured by rust, but yielded about sixty bushels of good grain. A strip of the same land, sowed without guano, hardly produced as much as the seed; and the little it did produce was of very inferior quality.

Last fall about one and a half tons were put in, by two-horse ploughs, on a thin field that had been fallowed with three horses, and the yield, though reduced by the ravages of the fly, would not be discreditably fair tobacco lots. In this case one part of plaster was mixed with four parts guano and four bushels of the compost put on an acre.

In both cases clover was sown in the spring but did not succeed well in either. The land is manifestly improved.

By these experiments and by others' experience, I am satisfied that it is safe practice to apply guano for wheat, on as much poor land as can be sowed in good time, after having seeded all the tobacco lots and all the fallowed land that belong to the year. No doubt, taking a term of years, it would be safe to use it further, but I believe no one will have cause to regret that he has applied it to this extent in any year. I would sow my tobacco lot and the regular portion of fallowed land, and then make out a full crop of wheat by putting guano on the poorest parts of the plantation.

But, Mr. Editor, while the way seems plain enough for an increase of the wheat crop, there is a growing difficulty ahead. After the crop is made it is hard for a planter to secure it in good season. Even if the weather be what we would have it, a heavy crop of wheat cannot be "saved" by the regular plantation force without considerable loss—and if the weather be unfavorable for harvest a great loss must be borne. Nor is it possible, at least hereabouts, always to get hirelings for the harvest; the supply of these is less than the demand. Now, if we could get a good reaping machine this difficulty would disappear,

or be very much diminished. I have tried M'Keever's reaper, put up in Richmond, but it failed; and while I am confident it may be improved and made very valuable, I am equally confident that *as it is*, we cannot afford to use it. It cuts beautifully, perfectly, while it cuts at all; but it is impossible to make it cut regularly on without interruption. And while it works at its best rate it cuts no faster than five cradlers, and requires at least ten good binders besides the driver and the raker!

Recently you said that M'Cormick's is the best reaper yet invented, but you refuse to commend it until its price is reduced: did you mean that the farmer cannot afford to pay that price—or simply that it pays more than a fair profit to the patentee? Can you not give us such a description of the machine, with its price, as will enable us to judge whether we may use it profitably?

As not foreign to the subject matter, let me say a word of Saunders' winnower. It is intended to clean wheat that has passed through a fan mill; and its principle is so familiar, its construction so simple, and its operation so successful, that one is made to wonder it was not invented when men first thought of a fan mill. Every farmer who wishes to make his seed wheat clean ought to have it. Mr. Haxall of Richmond, esteems it very valuable to millers, and I would not be without one in my mill for three times what it cost me.

Respectfully, yours,

T. T. T.

Prince Edward County.

The author of the communication, signed "T. T. T." in a private note requests us to give a description of M'Cormick's reaper.—We shall endeavor to do so in a short time, or as soon as we can procure a proper description from some one more conversant with mechanics than we are. Since writing the short notice to which our correspondent refers, we have found that there is a very considerable disagreement among experienced farmers as to the superiority of this reaper over Hussey's; and we have seen one gentleman, and heard of others, who, after having tried both, or witnessed their operation, have given up M'Cormick's altogether in favor of its rival.

When we refused to commend it we did so because we thought the price too high for the work necessary to construct the machine, and too high for the labor it accomplishes. Such is also the opinion of a friend of ours who has used and still uses it under the most favorable circumstances, to wit: on smooth and level lowgrounds. Certainly an inventor should be remunerated as well for the expenditure of

ingenuity as for the outlay of capital; but that forms no excuse for extortion.

Like all other reapers yet invented, it is a complicated piece of mechanism, liable to get out of repair, and requires careful management; when out of repair, there are not many farmers who can fix it up; and if any of the castings break it may be impossible to replace them until too late. On rough land, such as ours is, where it would be likely in its progress through the grain to meet with many obstructions, and with as little skill in mechanics as we possess, we should consider it indispensable to employ a competent workman to follow the machine through the harvest. And there are many farms like ours; and many farmers who possess no more skill than we do.

On some of the large estates upon our rivers, the James and Pamunkey, particularly, this reaper and Hussey's are both used. The gentlemen who have used them speak well of their performance. What precautions they take against accidents, not very likely to occur on such farms, we know not; nor what remedies they have when they do occur. One of the most eminent farmers of that country rejects them, from their complicated structure. He prefers the old method to the uncertainties which, in his opinion, attend the new. We know of only three reapers having been introduced in Albemarle. Of these two were abandoned after the first crop: we are not aware that the third is still in use. We think they met with no better fate in that heavy wheat growing district, the Green Springs, though the land there is probably not more rolling than many a prairie over which they sweep. Here, as there, it is always a difficult matter to hire good cradlers, who, in spite of their boasting, generally shirk a heavy harvest, and are only lured to it by high prices. In the Green Springs it is probable that the sum paid for hirelings on several estates exceeds the cost of the reaper. Where there is no such assistance to be had, then the reaper, whether desirable or not, must be resorted to.

As a *substitute* for labor this machine may in some cases be necessary, but so far as its exploits have been tested it does not *save* labor, in the sense in which that phrase is commonly understood. In a very interesting article on agricultural dynamics, in the Transactions of

the New York State Agricultural Society for 1850, we find the following:

"Well constructed machines for saving human labor by means of horse labor, when encumbered with little friction, will be found to do about *five times* as much work for each horse, as when the same work is performed by men. For example, an active man will saw twice each stick of a cord of wood in a day. Six horses with a circular saw, driven by means of a good horse-power, will saw five times six, or thirty, cords, working the same length of time. In this case the loss by friction is about equal to the additional force of attendance on the machine.

"Again. A man will cut with a cradle two and a half acres of wheat in a day. A two-horse reaper should therefore cut, at the same rate, ten times two and a half, or twenty-five acres. This has not yet been accomplished; we may therefore infer that the machinery for reaping has been less perfected than for saving wood. It should however be remembered that great force is exerted, and for many hours in a day, in cutting wheat with a cradle; and therefore a little less than twenty-five acres a day may be regarded as the maximum attainment of good reaping machines when they shall become perfected."

But the reaper does not ordinarily cut more than fifteen acres a day, and requires a shifting team at that, as one pair of horses cannot stand the pace necessary to a proper execution of the work. So that according to the above data, and not counting the driver and raker, who may very fairly be offset against the wheat lost by the cradle and saved by the reaper, it does only one-fourth of the work it ought to do in order to rank it as a labor-saving machine. But admitting it to be so, its cost is much greater than the cost of many machines which are eminently labor-saving, the wheat machine, for instance. Under the old mode of flailing wheat, a hand could usually by hard work get out about twelve bushels a day, somewhat more or less, according to the condition of the grain and straw. But J. B. and J. E. Smith of the Green Springs, county of Louisa, manufactured a machine which, with eight horses and fair attendance, easily threshes four hundred and fifty bushels of wheat in a day, and has threshed out with full attendance seven hundred and thirty measured bushels, and stopped work an hour by sun; thus doing at its average the work of thirty seven hands, and at its maximum the work of sixty hands, equal for each horse to four and five-eighths

Prof. Lewis L. Becke

and seven and a half hands respectively. This machine is sold at two hundred dollars, whilst a reaper doing, by the same data, less than one-fourth the work, costs five-eighths of the money: in other words, *other things being equal*, it ought to cost fifty dollars, but does cost one hundred and twenty-five, or seventy-five dollars more than a fair proportion would indicate. We are not mechanics enough to say anything of the relative cost of the materials, though the smaller, and more complicated, and nicer work required by the reaper may cost more, to be offset, however, against the heavier weight of the castings in the wheat machine, and the greater amount of first rate timber required for them, and to be offset further by the less liability of the machine to get out of order, and the greater facility for repairs, and, lastly, by the variety of uses to which the horse-power may be applied, such as sawing wood, for instance, (a very valuable use to which we are now putting ours,) cutting up straw, stalks, &c.

For these reasons we think the price of the reaper, of all reapers, too high, as is the price of nearly every agricultural implement. We have given the principles upon which our opinion is founded, and its correctness must stand or fall with them. We invite a candid examination of it. And if the agricultural community agree with us, we respectfully submit that it would be highly proper that the State should offer a premium of one thousand dollars or five thousand dollars for the best reaping machine, to be fully tested by practical farmers and mechanics, and to be furnished, by means of agencies in different parts of the State, at a price not exceeding seventy-five dollars. In our opinion the money would get us what we want, and would be well expended.

Undoubtedly, reapers in their present state are valuable inventions, and we would not be thought to underrate them or to disparage the genius and merit of their inventors. But the question is *as to their value at the price now paid for them*. Individually we have decided against their use for this reason, and our subscribers have a right to our opinion when they ask for it, unless we give them something better in its place. The manufacture of reapers is now a monopoly in a few hands, and the jealousies of Messrs. McCormick and Hussey have not caused them to forget it. Perhaps in the end

that may be better for the community. There is a demand for reapers now; but for cheap ones. We believe that nine-tenths of those who take an interest in them are waiting to buy until the price comes down, or until cheaper, but equally efficient, machines are invented, as they will be—cheaper and better—for such is always the course of invention. Had the present patentees so lowered the price as to have introduced reapers universally, it would have been hard to supplant their patents. As it is, they invite rivals to the field, and sooner or later they must yield to them. Thus monopoly always defeats itself. Already we have heard, but too vaguely for repetition, of superior machines, and many mechanics are trying their hands at them.

Whether T. T. T. and others shall choose, in consequence of the difficulty of getting hands—a difficulty which will increase with the heavy annual increase of our wheat crop—to purchase a reaper, is a question which each will decide for himself. But we hope he will allow us to suggest, what no doubt he is already aware of the propriety of doing, that he shall curtail his crops to the capacity of his labor, and not risk the “considerable loss” which it seems he now encounters in “saving” his wheat. In farming, far more than in any other pursuit, “a penny saved is two pence gained.”

For the Southern Planter.

#### DISEASE OF SHEEP.

*Mr. Editor*.—After a severe or wet winter sheep are often lost by a disease known in England as the turnsick or sturdy. It attacks the one or two year olds; after that age they are said to be exempt from that disease. In France, where their sheep are not well attended to, the loss from this cause is estimated at a million a year. In England, at an average of two to three per cent. Such a percentage, with our careless management, would scarcely be observed, if equalized among our flocks, but it often falls with unequal severity on the best. This has occasionally happened in past years to some of my neighbors. I have myself this year lost ten out of sixty ewes in one flock, mostly those in their second year—none more than three years old. The order was such with those killed, before they had lingered too long, as to cause the tallow to be an object worth preserving.

When first taken they are dull, and scarcely

graze at all—ruminates fitfully and languidly—separate themselves from the flock—seek a stream or ditch and stand poring over the water until they tumble in—occasionally start as if frightened and run off from the flock. The sheep commences a rotary motion, moving in concentric circles, his head turned to one side, and always turning to the side to which his head is bent, he falls and scrambles up to recomence his motion, until he becomes exhausted and dies, if his death is not hastened by falling into some ditch or stream over which he has preferred to stand.

The disease is said by European writers to be caused by an insect, viz: "the Many-Headed Hydatid of the Brain." It forms its nidus in a sack of fluid between the membrane covering the brain and the brain itself, or imbedded in its substance. The size of the sack is from a pigeon's to a hen's egg. At first the fluid is transparent, but becomes turbid as the eggs hatch. The insect is about a line in length, and easily discerned with a microscope. Its effect is oppression upon the brain, causing absorption of its substance, and often of the adjoining portion of the skull, producing idiocy of the animal and blindness. With the educated veterinary surgeons of Europe they do not hope to save more than two in five of those attacked. This is done by trephining and extracting the sack. The ignorant shepherd swings his sheep round by the ears or drives him over a precipice; if his neck is not broken by the fall the sack may be burst; or thrusts a knitting needle or wire up the nostrils into the brain, where, if perchance, it strikes the sack, the animal may be relieved. Hogg, the Eurick Shepherd, when a boy, was in the habit of knitting while tending his sheep. The sturdy sheep of his neighbors would annoy him by wandering off to his own flock; to drive them off, he would catch them and thrust his knitting needle up the nostril into the brain, when to his surprise they would spring up relieved and run off. This practice, however, upon subsequent trial, was found rarely successful, as the sack of the hydatid was not always in a position to be reached by the needle. Upon my own examinations I have not discovered the sack, the rude operation of the tenon saw always bursting it; but I found the brain highly inflamed, with extravasated blood in clots between its lobes. Yet the vacant countenance; the absence of furious delirium; its inoffensive deportment to its companions are not symptoms of inflammation of the brain; he is not lethargic, as in apoplexy, and lingers for days and weeks. After three years old it is not subject to the disease.

A flock of maiden ewes and wethers, kept upon a high, dry ridge, having access to a warm shelter and also the protection of a large straw stack, escaped entirely; but the flock in which the loss occurred ran in vale land, trampled and not wet, without shelter, and preferred to sleep near the house on the north hill-side, exposed to north-east and north-west winds: oc-

asionally they would be driven into the barn-yard in very bad weather, then the yard was always muddy. The only preventive I can suggest is dry pastures and good shelter.

On farms where there is much waste land, to which sheep and cattle have access, particularly fine old fields, they find warm and dry situations, protected by the trees; but upon those without waste land at all, the fields are exceedingly bleak in winter, and animals without shelter suffer very much. Wet pastures, wet and severe winters and springs are considered as the cause of this disease.

As in the rot, a few hours' grazing of a flock upon particular spots, in districts where it prevails, will infect it with the fluke, an insect three quarters of an inch long, which breeds in the liver of the sheep, and destroys, by disorganization of this organ, every individual; so in this case the ova of the animalculæ, like minute seeds, may remain an indefinite period in the earth and be taken up in the food, and if they escape the danger of rumination, be conveyed in the chyle threading the minutest blood-vessels and capillaries until they reach, as a favorable spot for the nidus, the brain of the young sheep, weakened by exposure on cold, wet pasturage, &c. &c.

R.

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#### TO CORRESPONDENTS.

Our contributing friends will not only confer a favor, but save us a deal of postage, by sending all communications, intended for the columns of the Planter, to the address of FRANK G. RUFFIN, Shadwell, Albemarle Co. Va. When they are addressed to Richmond, we have to pay postage on them to the Editor, and back again. They will be more promptly attended to if directed as above.

THE PUBLISHER.

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#### THE JANUARY NUMBER.

We were unfortunate enough to have nearly the whole of the mail of this number, on the route of the Central Rail Road Agent, lost. As soon as it can be reprinted it will be furnished to such subscribers as did not receive it. Although we struck off a large number of extra copies, in consequence of the large accession to our subscription list, the edition has been entirely exhausted. Such new subscribers as do not receive the January number along with the others, will also be furnished. We ask the indulgence of all, for a short time.

THE PUBLISHER.

Vol. 10. No. 1. 1852.

## STATE AGRICULTURAL CONVENTION.

At a meeting of the State Agricultural Convention, held in the city of Richmond on Thursday, the 19th of February, 1852, the Convention was called to order by Edmund Ruffin, Sr. Esq. and on his motion Willoughby Newton, Esq. was unanimously elected President *pro tempore*, and Charles B. Williams was appointed temporary Secretary.

The names of seventy members then present, were enrolled.

On motion, it was

*Resolved*, That Messrs. E. Ruffin, Sr. Thomas J. Randolph, F. G. Ruffin, Robert Grattan, Bernard Peyton, Jas. M. Morson and E. G. Booth be a committee to prepare business for the Convention.

*Resolved*, That Messrs. Franklin Minor, R. G. Morris, G. W. Richardson, Thomas Ritchie, Jr. and Dr. T. B. Anderson be a committee to nominate permanent officers of the Convention.

*Resolved*, That Messrs. Richard Irby, B. F. Dew and James A. Seddon be a committee to confer with the Executive Committee of the existing State Society to ascertain the terms upon which it is proposed that they shall co-operate.

Adjourned to meet in the Hall of the House of Delegates this afternoon at four o'clock.

The Convention re-assembled at four o'clock agreeably to adjournment.

The names of thirty-seven additional members were added to the roll of the Convention.

Mr. Minor, from the committee appointed to nominate permanent officers of the Convention, reported the following nominations, which were unanimously adopted:

For President, EDMUND RUFFIN, Sr. of Hanover.

For First Vice President, WILLOUGHBY NEWTON of Westmoreland.

For Second Vice President, BERNARD PEYTON of the City of Richmond.

For Third Vice President, THOMAS J. RANDOLPH of Albemarle.

For Fourth Vice President, RICHARD G. MORRIS of Amherst.

For Fifth Vice President, ROBT. GRAT-TAN of Rockingham.

For Sixth Vice President, EDWIN G. BOOTH of Nottoway.

For Secretaries, FRANK G. RUFFIN of Albemarle, and THOMAS RITCHIE, Jr. of Henrico.

Mr. Ruffin took the Chair and returned thanks for the honor conferred upon him.

Mr. Irby, from the committee appointed to confer with the Executive Committee of the State Agricultural Society on the terms of co-operation, &c. reported that the Executive Committee manifested the most cordial disposition to co-operate with the Convention, and authorized them to say that they submitted the further organization and the further direction of the State Society to the discretion and wisdom of the Convention.

The report was referred to the Committee to Prepare Business for the Convention.

On motion of F. Minor, Esq.

*Resolved*, That the committee appointed to prepare business be instructed to inquire into the propriety of selecting a suitable agent to visit the different portions of the State, and make personal application to the friends of agricultural improvement, to become members of the State Society; or some other effective means of enlarging the number of the members of the State Society.

On motion of Mr. Morris of Amherst, the following resolution was adopted:

*Resolved*, That a committee be appointed to inquire into the expediency of petitioning the Legislature to amend or repeal the laws regarding the duties of the Inspector of Guano and Plaster.

The President appointed the following gentlemen the Committee: Messrs. Morris of Amherst, Newton of Westmoreland, Gaines of Hanover, Stuart of Fairfax and John Wood, Jr. of Albemarle.

On motion of Mr. John Wood, Jr.

*Resolved*, That the Inspector of Guano and Plaster for the City of Richmond be requested to lay before the committee, having in charge the inspection laws under consideration, such facts touching the same as to him may seem expedient.

On motion, the Convention then adjourned to meet again on Friday morning at eleven o'clock.

Friday Morning, Feb. 20, 1852.

The Convention assembled at 11 o'clock. The names of five additional members were added to the roll of the Convention.

The President called Mr. Newton to the chair.

Mr. Ruffin, from the Committee to Prepare Business, made a report, recommending that the Convention establish a State Agricultural Society, to be called the State

Agricultural Society of Virginia; that the officers shall consist of a President, six Vice Presidents, a Recording and a Corresponding Secretary, Treasurer, and an Executive Committee, to consist of the above officers and five other members to be elected annually, and committing the details of the organization of the Society, such as the preparation of a Constitution, the offering of premiums, &c. to the said Executive Committee, who are required to hold stated meetings, to carry into effect, by particular regulation, the general resolutions and instructions of the Society.

It is made the duty of the Executive Committee to apply to the Legislature for an act of incorporation, with provisions in the charter to authorize the sheriffs of the Commonwealth to collect the annual dues of the Society.

The first annual contribution of members of the Society was fixed at two dollars, and annually thereafter at one dollar, and life membership at twenty dollars.

Moneys derived from life membership and donations to be invested in State stock, and the interest appropriated annually to the use of the Society.

Mr. Morris of Amherst, from the Committee on the Inspection of Guano and Plaster, made the following report, which was ordered to be laid on the table:

The Committee appointed to inquire into the expediency of amending or abolishing the Inspection of Guano and Plaster, have had the subject under consideration and advise that a memorial be presented to the Legislature, praying that said inspection be abolished.

The Society proceeded to the election of Treasurer, that the members present wishing to unite with the Society might enter their names in the Treasurer's book. Gen. B. Peyton was elected Treasurer.

Mr. Edmund Ruffin offered the following resolutions, which were unanimously adopted:

*Resolved, as the sense of this Convention.* That the State of Virginia, and especially the cause of agriculture, has sustained, in the lamented death of Gen. Corbin Braxton, a loss that cannot soon be repaired.

*Resolved.* That with a full sense of his eminent merits, and of the loss which we deplore, these resolutions be entered on the minutes of the Convention, and a copy thereof be transmitted to his family as a feeble though sincere tribute to the memory of one of the most useful and estimable men that Virginia has produced.

The following resolution, offered by Gen. Richardson, was unanimously adopted:

*Resolved,* That this Convention most earnestly recommend to the farmers, mechanics and other householders of Virginia, that each one of them exert himself to extend the circulation of the Southern Planter, the only agricultural paper published in Virginia, more than any other adapted to our people, conducted with signal ability, and in every respect entitled to our zealous support. While thousands of dollars are annually paid in subscription to papers published in other States and of far less value to our agriculturists, our own modest and unpretending journal, edited and printed by Virginians, laboring with untiring industry and perseverance for our best interests, has hitherto been left by our own people to struggle for a bare subsistence. Let this indifference to those interests and to the sterling merits of the Southern Planter be instantly shaken off; let every man do what he can, and the paper will speedily be found where it ought to be, a fireside companion of every family.

The Convention then proceeded to the election of officers of the Society, when EDMUND RUFFIN, Sr. of Hanover was unanimously elected President.

JAMES M. MORSON of Goochland, First Vice President.

HILL CARTER of Charles City, Second Vice President.

WILLOUGHBY NEWTON of Westmoreland, Third Vice President.

THOMAS JEFFERSON RANDOLPH of Albemarle, Fourth Vice President.

Gen. P. H. STEINBERGEN of Mason, Fifth Vice President.

ROBERT GRATTAN of Rockingham, Sixth Vice President.

MESSRS. L. E. HARVIE of Amelia, WM. BOULWARE of King & Queen, EDWIN G. BOOTH of Nottoway, WM. G. OVERTON of Hanover, and WILLIAM H. RICHARDSON of Richmond, were elected the Executive Committee.

CHARLES B. WILLIAMS of Henrico, was elected Recording Secretary, and FRANK G. RUFFIN of Albemarle, Corresponding Secretary.

The Convention then adjourned as a Convention, but to meet again to-morrow as a Society.

ED. RUFFIN, *President.*

FRANK G. RUFFIN, } *Secretaries.*  
THOS. RITCHIE, Jr. }



*Vol. 10, No. 1, 1852*

VIRGINIA STATE AGRICULTURAL SOCIETY.

The Society met by appointment of the convention on Friday evening, the 20th of February, 1852, at half past seven o'clock.

The report of the Committee on the Inspection of Guano and Plaster, laid on the table in Convention, was taken up, adopted, and committed to Richard G. Morris, Esq. with instructions to prepare a memorial to the Legislature, expressive of the opinion entertained by the Society that the inspection of these articles ought to be abolished.

On motion of T. J. Randolph, Esq. Resolved, That committees be now appointed for the cities of Richmond and Petersburg, and hereafter by the Executive Committee, in their discretion, for the other cities and counties of the State, to call on the citizens and urge them to become members of the Society.

Committee for Richmond, Messrs. Hugh W. Fry, Edwin Wortham and John H. Claiborne.

Committee for Petersburg, Messrs. R. B. Bolling, Thomas Branch and Quinn Morton.

ED. RUFFIN, *President.*

CH. B. WILLIAMS, *Rec. Sec'y.*

PLOUGHING.

From a letter received from a gentleman connected with the Hampshire County Society, we gather the following facts in relation to the trial of stubble ploughs, at the late exhibition of that society at Northampton. There were ploughs in use from four different manufacturers, but after a long trial, Ruggles, Nourse, Mason & Co.'s No 37 was decided to be the best, on account of its great ease of holding, and its superior work.

A feat never before performed in ploughing, was accomplished by one of the contestants, who used Stubble Plough No. 33 of the same manufacturers. Starting his horses at one side of the field, he set the plough, and then let it run by itself to the end of the lot, a distance of 35 rods. Then it was just touched sufficiently to guide it round to the next furrow, when it set itself, and went through without a hand being touched to it. This is a quality which has long been desired, and it is manifest that the plough which can do its work well without being held has little need of any other recommendation.—*N. E. Farmer.*

PAYMENTS TO THE SOUTHERN PLANTER,

From January 26th to March 1st, 1852.

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

Edwin N. Palmer, to January, 1853,	} \$3 20
Wm. T. Waits, to January, 1853,	
Dr. Paul J. Carrington, to Jan. 1853,	
C. M. Adkisson, to January, 1853,	} 2 00
Dr. Robert R. Barton, to January, 1853,	
Dr. F. Carr, to January, 1853,	
Richard O. Morris, to January, 1853,	
Claudius Dickinson, to January, 1853,	
Rev. W. W. Kennedy, to Jan. 1853,	
Richmond Terrill, to January, 1853,	
Henry S. Hathaway, to January, 1853,	
Merit P. Sledge, to January, 1853,	
Powhatan B. Sledge, to Jan. 1853,	
Henry S. Mason, to January, 1853,	} 5 00
J. J. Deal, to January, 1853,	
Carter Ball, to January, 1853,	} 1 00
Dr. N. M. Osborne, to January, 1853,	
E. Brown, to January, 1853,	
Henry Curtis, to January, 1853,	
Wm. English, to January, 1853,	
Rob. G. Montgomery, to Jan. 1853,	
Dr. James Motley, to January, 1853,	
Henry Miskel, to January, 1853,	
James L. Lamkin, to January, 1853,	
Andrew Jackson, to January, 1853,	
Thomas Oldham, to January, 1853,	} 9 23
James Yearby, to January, 1853,	
James B. McCarty, to January, 1853,	} 3 77
Jos. W. Shearman, to January, 1853,	
H. L. Layton, to January, 1853,	
Geo. B. A. McCarty, to January, 1853,	
John H. Steer, to January, 1853,	
Julian Ruffin, to January, 1853,	
Edmund Ruffin, Jr. to January, 1853,	
Mrs. Martha Cocke, to January, 1853,	
Jesse Whitehead, to January, 1853,	
Charles B. Williams, to January, 1853,	
James C. Denty, to January, 1852,	} 2 50
Rev. A. B. Davidson, to January, 1853,	
Wm. R. Hatchett, to January, 1853,	} 1 00
J. D. Massenburg, to January, 1852,	
J. Lewis Brooke, to January, 1853,	
Alexander Smith, to January, 1853,	
Wm. Finch, to January, 1853,	
Dr. Thos. J. Garden, to January, 1853,	
James B. Ford, to January, 1853,	
John T. Anderson, to January, 1853,	
Rev. John T. Clark, to January, 1853,	
George Woodfin, to January, 1853,	
Dr. C. W. Wormley, to January, 1853,	} 1 00
Peyton S. Coles, to July, 1852,	
F. K. Nelson, to January, 1853,	} 1 00
John Fray, to July, 1852,	
Col. F. H. Smith, to January, 1853,	
George W. Nelson, to January, 1853,	
John A. Montague, to January, 1853,	
Wm. K. Perrin, to January, 1853,	

Samuel Ball, to January, 1853,	\$1 00	Wm. S. Dabney, to January, 1853,	\$1
Wm. R. Taylor, to January, 1853,	1 00	Dr Charles Brown, to July, 1852,	1
J. C. Bruce, to January, 1853,	6 00	D. C. Carver, to January, 1853,	1
Col. Andrew Joiner, to January, 1854,	1 00	B. P. Peel, to January, 1852,	1
O. R. Funsten, to January, 1853,	1 00	M. B. Jarman, to January, 1852,	1
A. A. Chapman, to January, 1849,	2 00	Dr. D. E. Watson, to January, 1852,	1
S. T. Brown, to January, 1852,	1 00	H. St. George Harris, to July, 1852,	1
J. Warwick, to January, 1853,	1 00	James W. Dabney, to January, 1853,	1
F. M. Cabell, to January, 1853,	2 00	E. P. Chamberlayne, to January, 1853,	1
John Thom, to January, 1853,	1 00	C. C. Lee, to January, 1853,	1
H. Bear, to August, 1852,	1 00	Belfield Cave, to January, 1853,	1
Dr. D. M. Currie, to January, 1853,	1 00	Wm. A. Durvin, to January, 1853,	1
Thomas L. Lea, to January, 1853,	1 00	Wm. Durvin, to January, 1853,	1
W. J. Moore, to January, 1852,	2 00	Mrs. Susan A. Gardner, to Jan. 1851,	1
James Hill, to January, 1853,	1 00	W. S. Kempei, to January, 1853,	1
P. St. Geo. Cooke. (7 copies,) to Jan. 1853,	6 00	Martin Tutwiler, to July, 1852,	2
Wm. Gordon, to January, 1853,	1 00	Alexander Faison, to January, 1853,	1
Ro. W. Calloway, to January, 1853,	1 00	John England, to January, 1853,	1
Dr. T. B. Anderson, to January, 1853,	1 00	Dr. J. H. Ellerson, to January, 1853,	1
J. T. Goodwin, to January, 1853,	1 00	Thomas J. Blake, to January, 1853,	1
Marin James, to January, 1853,	1 00	James C. Hobbs, to January, 1853,	1
B. H. Dawson, to January, 1853,	1 00	G. Breat, to January, 1853,	1
A. D. Martin, to January, 1853,	1 00	Robert Wilson, to July, 1852,	1
Major Yancey, to January, 1852,	1 00	Dr. R. C. Pritchard, to July, 1853,	4
F. Thompson, to January, 1853,	8 00	Wm. M. Price, to January, 1852,	3
Dr. Miles George, to January, 1853,	1 00	Elsay Fogg, to January, 1853,	1
James M. Sublett, to January, 1853,	3 00	P. P. Nalle, (cor) to January, 1852,	1
Elias P. Burnett, to January, 1853,	1 00	R. Stringfellow, (corr.) to January, 1853,	1
Isaac B. Edwards, to January, 1853,	1 00	Col. D. B. Hancock, to January, 1853,	1
Wm. H. Davis, to January, 1853,	1 00	John B. Ayres, to September, 1852,	1
L. W. Allen, to January, 1853,	2 00	Robert S. Ellis, to January, 1853,	1
Edmd. A. Pendleton, to January, 1853,	1 00	J. W. Heptinstalk, to January, 1853,	4
Henry Street, to January, 1853,	1 00	Wm. H. Ponton, to January, 1853,	1
Robert G. Haile, to July, 1852,	1 00	T. C. Moorman, to January, 1853,	1
Robert Brook, to January, 1853,	1 00	H. M. Kirby, to January, 1853,	1
Dr. Thomas Meaux, to January, 1853,	1 00	John H. S. Hubbard, to Jan. 1853,	1
Walker B. Blanton, to January, 1853,	1 00	Wm. Chaney, to January, 1853,	1
J. M. Laidley, to January, 1853,	2 00	John Wilkinson, to January, 1853,	1
Capt. John Sims, to January, 1854,	1 00	Isaac T. Oliver, to January, 1853,	1
Wm. E. Glew, to January, 1853,	1 00	Joel H. Tanner, to January, 1853,	1
John Marshall, to September, 1852,	1 00	S. C. Townes, to January, 1853,	1
F. Lewis Marshall, to January, 1853,	1 00	Thomas Flippin, to January, 1853,	1
Fred. Gilliam, to January, 1853,	1 00	Wm. Wilson, to January, 1853,	1
Peterfield Trent, to January, 1853,	1 00	T. O. Sogars, to January, 1853,	1
Thomas J. Myers, to January, 1853,	1 00	Isaac N. Dodron, to January, 1853,	1
R. S. Bonham, to January, 1853,	1 00	Bird Dodron, to January, 1853,	1
John L. Sanders, to January, 1853,	1 00	Thomas Chaney, to January, 1853,	1
Wm. P. Creel, to January, 1853,	1 00	Frederick Payne, to January, 1853,	1
Thos. Copenhaven, to January, 1853,	1 00	Woodson Hughes, to January, 1853,	3
Abijah Thomas, to January, 1853,	1 00	N. B. Clarke, to January, 1853,	1
Jas. F. Pendleton, to January, 1853,	10 00	Reuben Blanton, to January, 1853,	1
Nathaniel L. Cox, to January, 1853,	1 00	W. H. Harrison, to January, 1853,	1
Ro. H. Richardson, to January, 1853,	1 00	R. G. Morriss, to January, 1853,	1
C. F. McDonald, to January, 1853,	1 00	Gustavus Wingfield, to January, 1853,	1
E. A. Scott, to January, 1853,	1 00	Capt. Thomas Lang, to July, 1855,	5
Watkins Johnson, to January, 1853,	1 00	E. F. Pinchbeck, to January, 1852,	1
Wm. F. Campbell, to January, 1853,	1 00	Dr. George C. Scott, to January, 1853,	1
John P. Stevens, to January, 1853,	1 00	Col. C. B. Killibrew, to January, 1853,	2
Larkin S. Garrett, to October, 1853,	1 00	Dr. H. C. Worsham, to January, 1853,	1
Nathaniel Tally, to January, 1853,	1 00	Rev. W. C. Meredith, to Sept. 1852,	1
Charles H. Lee, to January, 1853,	1 00	B. Wigginton, to January, 1853,	1
Ro. H. Vest, to January, 1853,	1 00	S. & M. Pennock, to July, 1852,	1
Napoleon B. Richardson, to Jan. 1853,	1 00	Thomas Hines, to January, 1853,	2
Robert Burke, to January, 1853,	1 00	J. L. Deans, to January, 1853,	1
G. C. Trevilian, to October, 1852,	1 00	John H. Tabb, to January, 1853,	1
Wm Guthrey, to August, 1852,	1 00	Geo. H. Dobyms, to January, 1853,	1
Wm. H. Ott, to January, 1853,	1 00	W. D. Mansfield, to January, 1853,	1

George W. Clarke, to January, 1853,	\$1 00	David Shelton, to July, 1853,	\$2 00
Patrick B. Carver, to September, 1852,	1 00	E. B. Jones, to January, 1853,	2 00
Andrew Mapwell, to January, 1853,	1 00	Wm. T. Scott, to January, 1853,	1 00
Elias Dodron, to January, 1853,	1 00	Wm. Irby, (correction,) to Jan. 1853,	1 00
Wm. A. Bibb, to July, 1852,	1 00	Charles Guerrant, to July, 1852,	2 00
George C. Gilmer, to September, 1852,	1 00	Thomas D. Edmunds, to January, 1853,	1 00
Thomas Garland, to July, 1852,	1 00	Thomas Massie, to January, 1853,	1 00
Eugene Davis, to July, 1852,	1 00	John S. Woodson, to January, 1853,	1 00
E. T. Jeffress, to January, 1853,	1 00	Hilary Harris, to January, 1853,	1 00
Wm. H. Nicholson, to January, 1853,	1 00	Wm. Townes, to July, 1852,	2 00
Mrs. L. W. Barlow, to January, 1852,	1 00	R. D. Warwick, to January, 1853,	1 00
M. Harrison, to January, 1853,	1 00	Robert Anderson, to January, 1853,	1 00
W. H. C. Lovitt, to January, 1853,	1 00	Wm. W. Watkins, to January, 1853,	1 00
Col. Wm. A. Dozier, to January, 1853,	1 00	Gen. W. H. Richardson, to Jan. 1853,	1 00
A. N. Bernard, to July, 1851,	1 00	Major R. P. Brown, to August, 1853,	1 00
W. A. Leavitt, to January, 1853,	1 00	T. B. Robertson, to January, 1853,	1 00
C. W. Montague, to January, 1853,	2 00	R. C. Dickinson, to January, 1851,	5 00
W. B. Montague, to January, 1853,	1 00	Lewis W. Garth, to January, 1853,	1 00
M. Davis, Jr. to January, 1853,	1 00	John G. Hancock, to January, 1853,	1 00
Bannister Coffee, to January, 1853,	1 00	Dr. James Latane, to January, 1853,	1 00
H. W. Jones, to January, 1853,	5 00	Joseph Farrar, to January, 1853,	1 00
James Newman, to January, 1853,	1 00	W. P. Smith, to January, 1853,	1 00
Mrs. Dr. W. B. Smith, to January, 1853,	1 00	James M. Morson, to July, 1854,	3 00
Samuel T. Miller, to January, 1853,	1 00	Thomas W. Meriwether, to Jan. 1853,	1 00
E. B. Hunter, to January, 1853,	1 00	Rev. T. W. Sydnor, to January, 1853,	1 00
R. H. Sharpe, to January, 1853,	1 00	J. H. Dobbin, to January, 1853,	1 00
A. Aldridge, to January, 1853,	1 00	S. H. Pettus, to January, 1853,	1 00
Wm. Robertson, to January, 1853,	4 00	Robert Scott, to January, 1853,	1 00
Estate of J. M. Meriwether, to Jan. 1853,	1 00	G. A. Cralle, to January, 1853,	1 00
Thos. Jellis, to January, 1852,	3 00	Samuel Scott, to January, 1853,	1 00
Wm. E. Glover, to September, 1852,	1 00	A. Worsham, to January, 1853,	1 00
Miss Nancy Perkins, to January, 1853,	1 00	Eward Farley, to January, 1853,	1 00
Samuel T. Chaudler, to January, 1853,	1 00	Dr. W. J. Harris, to January, 1853,	1 00
John S. Rogers, to January, 1853,	1 00	E. F. Williamson, to January, 1853,	1 00
Charles E. Kent, to January, 1853,	1 00	Dr R. E. Haskins, to January, 1853,	1 00
Archie Brown, to January, 1853,	1 00	P. T. Spratley, to January, 1852,	1 00
Dr. J. N. Powell, to July, 1852,	1 00	Wm. H. Goodwin, to January, 1853,	1 00
E. R. Simms, to January, 1853,	2 00	Gen. H. B. Woodhouse, to Jan. 1853,	1 00
Dr. Wm. Fuqua, to January, 1853,	1 00	H. F. Woodhouse, to January, 1853,	1 00
Col. Isham Trotter, to January, 1853,	1 00	Henry R. Franklin, to January, 1853,	1 00
Col. Wm. T. Mason, to January, 1853,	1 00	H. B. Jones, to January, 1853,	1 00
Joseph Jones, to January, 1853,	1 00	Col. T. F. Wingfield, to January, 1853,	1 00
Hubbard Minter, to January, 1853,	1 00	Richard M. Graves, to January, 1853,	1 00
Garland Hargrave, to January, 1853,	1 00	Richard L. Farenholt, to January, 1853,	1 00
Thomas Friend, to January, 1853,	1 00	Wm. Metlock, to January, 1853,	1 00
Henry Deurson, to January, 1853,	1 00	James P. Anderson, to January, 1853,	1 00
Wm Gibson, to January, 1853,	2 00	R. H. Harwood, to January, 1853,	1 00
Wm. S. Harris, to January, 1853,	1 00	J. T. Baker, to January, 1853,	1 00
Thomas L. Pleasants, to January, 1853,	1 00	Elias T. Harris, to January, 1853,	1 00
Bolling Jones, to January, 1853,	3 00	J. O. Claybrook, to January, 1853,	1 00
Wm. E. B. Ruffin, to January, 1854,	2 00	Wm. Elsom, to January, 1853,	1 00
George H. Burwell to January, 1853,	1 00	John A. Thurmond, to January, 1853,	1 00
Joseph Gilmore, to January, 1853,	4 00	A. M. Hobson, to January, 1853,	1 00
Thomas G. Burke, to January, 1853,	1 00	John D. Hobson, to January, 1853,	1 00
Henry Harris, to January, 1853,	1 00	E. W. Shepherd, to January, 1853,	1 00
W. Y. Hiter, to January, 1853,	1 00	D. E. Jiggs, to January, 1853,	1 00
Joseph Rock, to January, 1853,	1 00	Col. John Hargrove, to January, 1853,	1 00
Joshua Cannon, to January, 1853,	1 00	James C. Spous, to January, 1853,	3 00
Archd. M'Lean, to July, 1851,	1 00	Geo. D. Saunders, to September, 1852,	1 00
Edward M. Tompkies, to January, 1852,	1 00	W. T. Wooton, to January, 1853,	5 00
W. W. Harris, to January, 1853,	2 00	Wm. S. Graves, to January, 1853,	1 00
T. M. Jeffress, to January, 1853,	3 00	J. A. Clay, to January, 1853,	2 00
Dr. John R. Garnett, to January, 1853,	2 00	M. P. Brooke, to January, 1853,	1 00
H. C. Watkins, to January, 1853,	1 00	Thomas S. Hall, to January, 1853,	1 00
A. G. Jeffress, to January, 1853,	1 00	Samuel M. Wilson, to January, 1853,	1 00
Richard Bagby, to January, 1853,	1 00	J. Tisdale, to September, 1852,	1 00
Wm. P. Peyton, to January, 1853,	3 00	N. B. Gay, to September, 1852,	1 00

*Vol. Twenty. P. Backe*

8 47

John M'Alister, to January, 1853,	\$1 00
Thomas Watkins, to January, 1853,	1 00
E. C. Griffith, to January, 1852,	5 00
E. G. Booth, to January, 1852,	2 00
John Hodges, to January, 1853,	1 00
W. B. Harrison, to January, 1853,	1 00
J. W. Brockwell, to January, 1853,	1 00
Randolph Harrison, to January, 1853,	1 00
Wm. Tompkins, to October, 1852,	1 00
G. B. Mill, to January, 1853,	1 00
J. R. Barksdale, to January, 1853,	1 00
Finch & Carlton, to January, 1853,	1 00
R. M. Glenn, to January, 1853,	1 00
Anderson Edwards, to January, 1853,	1 00
E. I. M. Anderson, to January, 1853,	1 00
Wm. L. Pannill, to January, 1853,	1 00
A. J. Perkins, to January, 1853,	1 00
W. W. Key, to January, 1852,	5 00
Gen. Alex. Brown, (2 cops.) to Jan. 1853,	3 00
Z. H. Brooks, to January, 1853,	3 00
Samuel Griffin, to January, 1854,	3 25
P. W. Grubbs, to July, 1852,	1 00
Capt. Edwd. Haskins, to January, 1853,	1 00

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Richmond, March 12, 1851.—1y

## TO THE AGRICULTURAL PLANTERS OF VIRGINIA.

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The undersigned, after five years' experience, and a very considerable outlay of capital, has finally triumphed over every obstacle of doubt and prejudice, and is prepared to demonstrate that, for Crop and Land, he can present to the public the cheapest and best Manure known to the age.

His Compounds contain Ammonia, Potash, Biphosphate Soda, indeed every Chemical element, in a powerfully concentrated form, which the soil requires. Any one who doubts this can have his Salts analyzed at the expense of the undersigned, and if they fail in the test, he will return the money, if purchased.

In Wheat, he is willing to admit, that so powerful a stimulant as Guano, will, in many soils, produce a larger first crop, but very far less in a third crop, than his Salts. In Corn and Grass, he challenges a fair trial, upon any soil with Guano or any other Manure—and for any forfeit that would make the experiment interesting. For Corn and Grass, he avers that there is no Manure equal to his from a first to a fourth crop; and he is able to establish it by experimental proof.

His "BIPHOSPHATES" are pure, dissolved with the strongest Sulphuric Acid, and the Bones fresh. In England, no manure is in higher favor, or more sought after for Crop and Land.

His "RENOVATOR" is a Compound of every Chemical which science and experience have shown to be necessary to renovate worn-out land.

His "GENERATOR" is a compound made expressly for Tobacco, and is worthy the most careful investigation of the Planter.

His "PLASTER AND POTASH" is also manufactured for the growth of the Tobacco Plant, and when the almost absolute necessity of Potash is known, for the growth of prime leaf Tobacco, the value of this article may be readily estimated.

His "GROUND PLASTER" is so well known and so eagerly sought from the most distant sections of the Union, that he deems it only necessary to say, that below the standard he has adopted, the undersigned will never permit it to go. There is no article which the Farmer buys that he is more imposed upon, than in this one, of universal use.

In the January number of the American Farmer, the following reply is made by the editor of that valuable paper, in reply to the enquiries of a correspondent:

"Were we to plant Corn in land so poor, that when unaided by manure, would only

*Bot. Henry B. Boeke*

produce five bushels of Wheat, we certainly would not rely upon less than four hundred pounds of Guano, producing a good crop."

Now, not relying upon less than four hundred pounds would certainly imply that an additional hundred pounds would do no harm.

Those four hundred pounds of Guano, with transportation, would cost the Farmer not less than ten dollars per acre, which, with the expenses of cultivation, would require "a very good crop" to remunerate, provided no durable benefit was rendered to the soil. Now, what permanent benefit does Guano render to the land? What is its value, except the first crop? Does it operate like a similar powerful stimulant upon the human mind? with prodigious, almost delirious excitement? to be followed by a commensurate depression and exhaustion? Is Guano a stimulant or a manure?

These questions the experience of the Farmer can best answer. But at the present prices of grain they are of vital importance; although in agricultural journals but little discussed. In Pennsylvania, the most lasting manure is called the best—further South, the first yield is the standard. Now, when these Salts are intended for Corn, the undersigned never recommends more than one barrel to the acre, (three dollars,) if applied in the hill—or two barrels for the poorest worn-out land. If the Corn crop is to be followed with a Wheat crop one barrel in the hill, and one broadcast is recommended, slightly harrowed in—in this way, the Salts are more efficacious than when applied with the Wheat at seeding time. For lasting benefit to Land, these Salts are only subordinate to fresh lime. As a top-dressing they are certain and valuable.

The price of the Biphosphates are four dollars per barrel; the Renovator three dollars per barrel, or twenty-one dollars per ton.

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His Plaster is sold exclusively by Messrs. Deane & Brown of Richmond, and Messrs. Watkins & Morton of Petersburg.

Freight from Baltimore to Richmond and Petersburg, seventy-five to eighty-seven and a half cents per ton—transportation not being more expensive, counting teams and laborers, if as much so, as hauling out barn-yard manure. No man need make an extravagant experiment; therefore, no great risk is necessary to make a trial. The Agriculturist can order from the undersigned, to be shipped to Richmond or Petersburg, and to the care of each particular Agent, upon whom the undersigned can draw free of expense.

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Instead of publishing certificates, which is more expensive and less satisfactory, the undersigned begs leave to refer to the following names. He has taken this liberty without consultation or permission of the parties named, but from their intelligence, success and enterprise as Agriculturists, and their character as gentlemen of the highest respectability and honor, he has no doubt but what they would cheerfully impart their experience and information, many of them having largely used these Salts. The postal direction of each party is affixed. It may be proper to observe that the Salts do not produce as heavy a stalk in Corn, as Guano. For its yield the farmer must look to the grain of the Corn.

#### REFERENCES.

Professor Higgins, State Chemist of Maryland, Baltimore, for its Chemical constituents; Rev. J. S. Armistead, Stony Point post office, Cumberland county, Va.; Joseph W. Twyman, Esq. Earlysville, Albemarle county, Va.; John M. Dow, Esq. Washington City, D. C.; Dr. Wm. Mosher, Catonsville, Baltimore county, Md.; Dr. William Kirkwood, Prince Georges county, Md.; Wm. H. Herbert, Esq. Beltsville, Prince Georges county, Md.; Seth W. Wafield, Esq. Sheriff Howard District, Md.; Dr. Wm. J. Saddler, Saddleersville, Queen Anne county, Md.; W. W. W. Bowie, Esq. Prince Georges county, Md.; George E. Yeatman, Warrenton, Fauquier county, Va.; General Henry S. Stiles, Cecil county, Md.; H. E. Bateman, Esq. Easton, Talbot county, Md.; Arthur M'Court, Baltimore; Dr. Robert Dorsey, Edward, Franklin, Baltimore county, Md.; John L. Stavesberry, Treasurer of Baltimore county, Baltimore; Peter Gowan, Esq. Laurel, Howard county, Md.; Col. Horace Capron, Laurel, Md.; Carrville S. Stansbury, Esq. Baltimore county, Md., with hundreds of other names, but the above is amply sufficient for all practicable purposes. The Messrs. Babours of Orange county, Va. have also used the Salts, with what effect the undersigned has never heard.

Pamphlets will be furnished to all who feel interest enough to investigate; and who are willing to believe that there may be progress in Agriculture, equal to other branches and enterprises of life.

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Office at the Wholesale Drug Store of Ober & M'Conkey, corner of Lombard and Hanover streets.

Factory, Federal Hill, Baltimore, where, for personal investigation, I invite all persons that take an interest in Agricultural pursuits, who visit Baltimore, and to whom I will cheerfully explain my whole process. There is no secrecy in it.

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WILLIAM GILHAM,

Prof. Chem. and Agriculture, V. M. I.

Feb 1, 1852.

Lexington, Va.

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JOSEPH RENNIE.

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Richmond, Va.

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WM. A. PRATT & CO. Proprietors.

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WM. H. RICHARDSON.

Richmond, Jan. 1, 1852.—3t.

*Wm. H. Richardson*

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## PIEDMONT FEMALE SEMINARY.

THE subscriber will open a Female School at his house, near Gordonsville, on the 15th of January. He has already engaged a teacher of unquestionable qualifications. His terms per session of 10 months will be \$120, for board and tuition in all the English branches, and in the French language. An additional fee of \$30 will be charged for music.

de—31\* JAS. W. GOSS.

## OSAGE ORANGE SEED.

SAVED with great care, and received direct from the region where it is grown, of reliable quality. For sale by

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de—4t 55, Water st. New York.

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STOCK Cattle of all the different breeds, Sheep, Swine, Poultry, &c. will be purchased to order, and carefully shipped to any part of the United States, for which a reasonable commission will be charged. Apply to

AARON CLEMENT, Philadelphia.

Referto Gen. W. H. Richardson, Richmond, Virginia.

N. B.—All letters, post-paid, will be promptly attended to.

ap—tf

## GREAT REDUCTION IN PRICES OF HATS AND BOOTS.

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THE cheapest place in the city of Richmond to buy HATS and BOOTS is at the above store, where every article sold may be relied on as represented. By this means he has gained a good run of custom, and his customers feel satisfied. Below is a list of his prices, which will be strictly adhered to:

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Second quality " - - -	3 00
Best quality silk, - - -	2 50
Second " - - -	2 00

Fine Calfskin Sewed Boots only three dollars and fifty cents.

Also, CAPS, SHOES and UMBRELLAS. J. H. ANTHONY has made an arrangement with one of the best makers in the city of Philadelphia, to supply him with a handsome and substantial Calfskin Sewed Boot, which he will sell at the unprecedented low price of three dollars and fifty cents. The attention of gentlemen is respectfully solicited, as they are the best and cheapest Boots that have ever been offered for sale in this city. He intends to keep but the one kind, and sell them at one price.

se—1y

THE RICHMOND AND PETERSBURG RAIL ROAD COMPANY respectfully inform farmers living on the Roanoke River and on the line of the Raleigh and Gaston Rail Road, that they are transporting tobacco and other produce between Richmond and Petersburg with promptness and despatch, running daily trains of eight wheel covered cars, securing tobacco and goods from damage. Tobacco consigned to the care of J. Lynch, Rail Road Agent, Petersburg, will be forwarded, free of commissions, to Richmond. Goods purchased in Richmond and consigned to the Rail Road Agent at Gaston will be forwarded up the river without charge for forwarding.

THOS. DODAMEAD,  
Sup't R. & P. R. R.

June 24, 1851—tf

## VIRGINIA AXES.

THE undersigned, in connexion with their Rolling Mill, have erected an extensive Manufactory of Axes, Hatchets, and Tools generally, which they warrant equal to any manufactured, and offer at Northern prices. They solicit the patronage of the agricultural community.

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