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THE SOUTHERN PLANTER AND FARMER,

DEVOTED TO

Agriculture, Horticulture, and Rural Affairs.

L. H. DICKINSON.....Editor and Proprietor.

RICHMOND, VA.,

AUGUST, 1875.

No. 8

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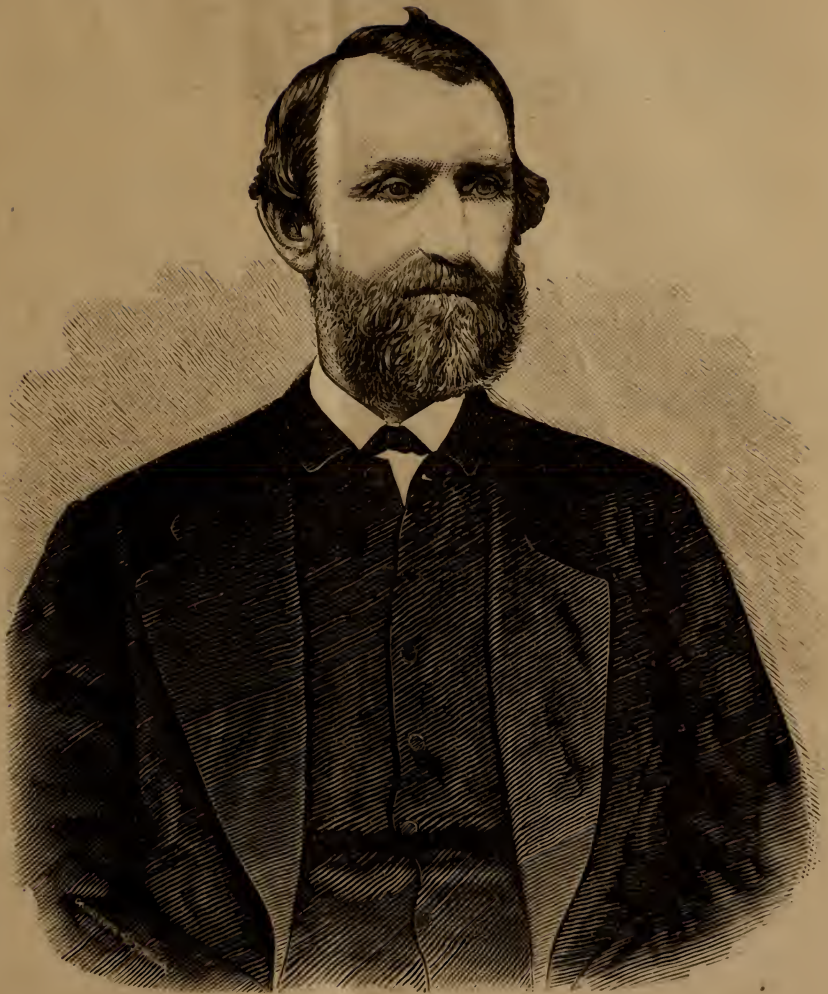
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AGRICULTURE, HORTICULTURE AND RURAL AFFAIRS

Agriculture is the nursing mother of the Arts.—XENOPHON.
Tillage and Pasturage are the two breasts of the State.—SULLY.

L. R. DICKINSON, EDITOR AND PROPRIETOR.

New Series. RICHMOND, VA., AUGUST, 1875. No. 8

[For the Southern Planter and Farmer.]

COST OF FENCING.

[The following article is on an important subject to our farmers, and we hope to hear from others on the subject. We think we can safely say that our excellent correspondent, ex-Governor Wm. Smith, of Fauquier, will give us his views in our next issue.—ED.]

When I look around me in this enlightened nineteenth century, with my political economy study cap on, and see the stupendous follies of people, for want of what they always claim to have to a high degree, a little common sense, and the want of sensible concurrent action to achieve important results, I have no hope of a millennium in agriculture or anything else, and believe the "*dies iræ*" will come and find the fool-killer's work not half accomplished.

In this day of degenerate politicians, however, who never attempt to enlighten the people, but follow in the wake of crude public opinion, as sharks in the wake of a vessel, who listen for the "*vox populi*" with ears as erect as a wild Indian who catches the sound of his game upon the passing breeze, who are all for personal success, and nothing for principle or the common weal—there is no hope for us but to await a change in the tide, and hope almost against hope, that a better day will dawn. Some year or so ago there appeared in an agricultural paper the broad assertion that the cost of fencing in the State of Pennsylvania was equal to the whole value of the live stock in the State. This was so remarkable a statement as at once to attract our attention.

To make some approximate estimate of the cost of fencing to the people of Virginia is the object of the present article, and whilst the data are insufficient or not sufficiently accurate, perhaps, to arrive at a high degree of approximation, low estimates have been advisedly taken, that the actual costs shall rather exceed than fall short of the results obtained.

From the statistics of Agriculture in 1870, we find that in the State of Virginia as at present organized, there were 73,849 farms of all sizes, and that of improved lands, exclusive of wood lands, and other unimproved lands there were 8,165,040 acres. This gives 110 acres as the average size of the farm of improved lands necessitating a fence. If we add ten acres additional to cover the wood and other lands under fence, we may safely assume we think that the average farm in our State requiring to be enclosed is about 120 acres, or 1200 square four-pole chains. If we suppose this farm to be in the form of a square, which of quadrilaterals, gives the minimum fencing for the area enclosed, the side of the square would be 34.64 chains, or as a very close approximation 762 yards. If divided into six rectangular fields, the amount of fencing required would be seven times as much, or 5,334 yards.

Allowing 40 rails for every hundred yards of an ordinarily good fence, we have to enclose properly the average farm, 21,336 rails. The rails are worth per hundred in both the timber and mauling about \$1 10 say, upon an average through the State, though as we have no means of verifying this hypothesis, it may be not be a very near approximation, yet the true value would probably exceed the amount assumed as our basis, as 100 good rails would make a cord or more of wood, and the cost of mauling is from 50 to 75 cents per hundred in different sections.

This gives say, 235 dollars as the cost of the rails necessary to enclose the average square farm. But this being the most economical form of enclosure for four-sided areas, and not adhered to in practice, we may safely assume in consideration of the crooked fences and irregular forms of our fields 250 dollars as a still closer approximation. Now comes in the additional expense of hauling and fencing. We suppose at the average distance for hauling rails at different seasons of the year, nine loads per day with a two-horse team, and 33 rails at a load would be a sufficiently high estimate. This would make 300 rails per day. If we assume the cost of hauling and the additional expenses of fencing the 300 rails to be two dollars, a low estimate, the cost of fencing the 21,336 rails would be 142 dollars, and allowing the small amount of eight dollars for the irregularity of fields as above 150 dollars.

Thus we have 400 dollars as an approximate result for the outlay necessary to fence in 120 acres of land with a good new enclosure into six fields.

It would therefore require an outlay to enclose the 73,849 farms in the manner and upon the basis adopted, \$29,539,600, or twenty-nine and a half millions of dollars. The value of all the live stock in the State by the same census was \$23,187,669, over twenty-eight millions.

Even if a four-field enclosure be adopted, the expense would be six-sevenths as much, or it would do away with only one division line, and the cost would be over twenty-five millions. We may safely as-

sume, then, that the cost of good new enclosures for all the farms of the State equal the value of their live stock. Granting that these enclosures require to be replaced every twelve years, we have here a little item of nearly two and a half millions of annual expenditures sunk in fences to keep out stock, two millions of which could be saved by requiring all farm stock to be fenced in, in standing pastures, or by moveable fences that could be durably constructed.

It should be observed also that the smaller the farm the greater the relative expense, as it requires just half as many rails to enclose 25 acres as prescribed, as it does to enclose 100 acres. The poor man and small farmer is thus much more interested in this matter than he has ever been taught to consider, but as we said before, our public men and law-makers never attempt to teach the people up to economic laws, but rather mount the rostrum to teach them how to vote.

We omit here the losses incident to our agriculture from successive droughts, which by some are supposed to be due in part to the destruction of our forests. This is, however, controverted. Though we have paid no special attention to this subject, either as to its philosophy or statistics, if there are any reliable—which we doubt. Yet one fact is worthy of consideration, and that is, that waters which fall to the earth are rapidly collected into streams and move off to the ocean presenting very little surface for evaporation, whilst the immense amount of water caught and held for evaporation by the great forests of a continent, can be better appreciated by the little urchin, who inveigles his playmate under a tree to shake down a heavy shower upon him, than the philosopher who has forgotten his boyish tricks.

But we leave this to the philosophy that rides upon the wings of the wind, and shoulders all responsibilities upon the gulf stream. What say the editorial fraternity of your city, yourself included. We believe they all speak *ex cathedra* on kindred subjects, and English Grammar.

C. J. KEMPER.

[For the Southern Planter and Farmer.]

A LETTER FROM MISSOURI.

Allow me to greet you from across the "Father of Waters," and pay my compliments to your most excellent Journal.

I have just finished reading the May number, one of the best yet, several articles in it being worth to the practical farmer each a year's subscription.

I cannot help drawing a comparison between the *Planter and Farmer* of to-day and that of *ante bellum* times. Then it was filled with learned dissertations on the art of Agriculture, which but few could understand and none practiced; now it commends itself for the entire practicability of all its communications. Its writers are evidently men who practice what they so ably set forth. I have

been induced to write a short article from reading the one on "Irish Potatoes" in May number.

I have raised a crop of Early Rose this season with half the labor I ever did before, and with better results. I will give the mode as taken from my dairy. Would like for others to try it. Ground being well prepared plant as early as possible in furrow, laid off, with a long sharp shovel, a little over three feet apart; cover with same, running close on each side of row. This leaves the ground in a succession of sharp ridges. When the first potatoes make their appearance above ground go over with a sharp harrow, if possible the Thomas smoothing harrow; this completely kills the young weeds and the potatoes now come up rapidly. When well up plow closely with a long bull-tongue, three furrows to the row. In a short time young potatoes will begin to form; then lay by with the shovel. Very little hoe-work will be needed, as this is sufficient hilling for early potatoes. And now a word about the labor question. I have worked with slaves upon a farm, with freedmen, and with native white labor. All as a general rule worked well when the *employer himself* set a good example, but for other reasons in addition to those "Powhatan" has given, I prefer the blacks. They are skillful in the cultivation of Southern crops and the use of tools, which foreign labor is not. Think for instance of attempting to raise and market a crop of tobacco with a set of raw foreigners. Plenty of native white labor can be procured here in the West, but those who have never tried it do not know the annoyance attending it. If I were a man of family, sooner than subject my wife to the annoyance and my children to the contaminating influences of hired boys, I would work fewer acres, or else adopt a different system of farming. Of course there are some noble exceptions.

Would say to Virginians, do not be in a hurry to move West. What with the grasshoppers, chinchbugs and drought, there are hundreds now all over this country who wish they had remained satisfied at home. I believe honestly, that all things considered, Virginia has no equal among the States for the farmer. What she lacks in fertility of soil is made up in natural advantages, and her soil, a great deal of it is as good, or can be made as good, as any in the West. The same economy practiced there will, in the end, reap as good results as here. I suppose this would be considered disloyal to my adopted State, but it is nevertheless true. Last year we had a drought of unexampled severity. This year we are drowned out, corn terribly washed on steep lands, a result of the miserable checking system on hillsides. And now the army worm is upon us. God save us.

HARVESTER.

It is easier to bear up under our misfortunes than to survive the comments of our friends on them.

[For the Southern Planter and Farmer.]

THE FAIRS OF THE STATE AGRICULTURAL SOCIETY

I have read with interest the article of "F. W. C.," in the *Planter* of the current month under the title, "The last State Fair and the next," and I like it. The writer is evidently an intelligent and appreciative farmer, and his timely suggestions are worthy of attention. His inquiries as to what has been done in the past may be answered, and what may be done in the future will, I trust, remove all causes for criticism. His question, why are larger premiums offered for Short-horns than other thorough-bred cattle, may be answered by the fact that high-bred animals of this class are more costly than those of other classes, and a higher premium is necessary to cover the risk of transportation and induce breeders to take that risk. F. W. C., if I mistake not the person whom the initials indicate, is a spirited breeder of Devons, which are much better adapted to the large district of Virginia east of the Valley to and including Tidewater, than Short-horns, and are, therefore, really of more value for that region, just as the South-down sheep is more valuable in a large portion of our State than the Cotswold; but a Devon bull will not bring one half the price of a premium Short-horn bull, whilst the premium offered for the former has not the same relative proportion. The breeders of Short-horns have complained of this as being too slight a discrimination in their favor, but the Society has done the best it could, and the present practice in this matter has prevailed since the first inauguration of our Fairs. I may add, that in making up the premium lists the work is usually referred to sub-committees of the Executive Committee, or rather the *Advisory Board* of the different departments, and the six members constituting the Board for the animal department are all gentlemen of high character and intelligence, who represent different sections of the State, and are familiar with stock-breeding, in theory if not in practice, and but one of them, so far as I know, has any personal interest in the breeding of Short-horns, and the premium list as published is the unanimous result of their action after due revision by the whole committee. It cannot, therefore, be fairly said that the Society is "run in the interest of Short-horns to the exclusion of all other breeds;" but the other breeds, with their grades, have, as we suppose, due consideration, and it certainly is not the intention to make any unjust discriminations.

Hoping that this may be a satisfactory response to the question of our friend F. W. C., I now pass to another part of his article which every true friend will endorse. It is too true, as he states, that our past exhibitions since the war have not been full in respect to farm, garden, orchard, and domestic products, but the reason for this may be seen in the bad seasons which have prevailed; and yet he very justly rebukes the farmers and their wives in the body of the State when they fail to exhibit samples of their products, and

permit the bulk of the premiums to be taken by those who reside near the city of Richmond. He very pertinently remarks, "that there is no department of the Fair which could be so well supplied and with so little cost or trouble to the exhibitor." Having been blessed this year with fine seasons and crops, this reason will not be good at the approaching Fair, and it is hoped that the suggestions of F. W. C. will be duly heeded, and that the display of these products will be grand and *telling* from all sections of the State.

F. W. C. next mentions "an annoyance which should be dispensed with—the introduction of fat-women, big babies, deformed animals," &c. Our reply to this is, that the rules forbid all demoralizing exhibitions, games of chance, betting on speed trials, &c., and only those shows which are innocent in their character are admitted, and they are taxed to an extent which yields a good income, which, added to other receipts, make up the fund from which the premiums are paid. And there is another view to take of this matter. Fairs will not succeed *without visitors*, and whilst many persons attend them with a view to instruction and profit, yet, probably a larger number go to be *amused and entertained*. Everything, therefore, which can legitimately contribute to both *instruction and amusement* will add to the general success. This principle is too well established by experience obtained from all popular gatherings to justify efforts to counteract it; and there are no good grounds for the belief that the Society at its Fairs, or the people who ought to be benefited by them, are in any way damaged by it.

On the whole, F. W. C. has done the Society good service, and I hope that the public will not only hear from him again, but that he will be on hand at the next Fair with a good herd of Devons, and other things which may be contributed from his well regulated farm.

W. C. KNIGHT, *Pres't S. A. S.*

[For the Southern Planter and Farmer.]

WHY CANNOT WE SAVE OUR OWN SEED?

It is estimated that from twenty to fifty thousand dollars are expended in Richmond yearly for garden seed. There would be some excuse for this if we could not grow these seeds ourselves. So far as my knowledge extends, the Early York Cabbage and the Cauliflower, are the only vegetables not bearing reliable seed in this latitude and climate.

For many of our seeds we have learned not to rely on the North, for example, of melons, cymlings, sweet potatoes, black-eyed peas, navy beans, peach blow potatoes and late corn. But for nearly everything else we send North, because it saves us time if not money.

There is a point in regard to the saving of seeds that must be borne in mind. We must know what class of plants will mix through the bloom. For example: You must not set for seed plants, a ruța

baga turnip near a flat dutch, or other variety. The best of seed vegetables is not very extensive, but it is sufficiently so to make a knowledge of them necessary in order to have your seed unmix'd. Some correspondent skilled in Botany will, I hope, give us some information on this point.

I suggest that neighbors form an association for mutual aid in this matter—one agreeing to have seed of the ruta бага only for instance, and another of the red top only, and mutually exchanging; and the same of other seeds that mix when planted in too close proximity.

There are certain insects that destroy seed. Snap beans and black-eyed peas are destroyed by a bug that bores out of them. The egg is laid while they are green and soft; is hatched in due time. The worm eats enough of the bean or pea to affect its power of generation. To prevent this the usual plan is to plant late—save seed from this late planting. The seed of the early crop may be preserved by filling any air tight vessel entirely full of the beans as soon as they are fully dry. Keep the vessel tightly corked until seeding time. The corked vessel contains so little air that the insect when hatched cannot live.

With regard to the early rose potato, thousands of bushels of which are sold here for seed, it has been answered in the *Planter*, that seed may be grown from the tuber of the same year planted in July. I myself have tested that the present season. Am now eating potatoes grown from seed planted from last year's crop which ripened in July, was planted and dry in October. G. G. MINOR.

Henrico, June 16, 1875.

[For the Southern Planter and Farmer.]

BLUE GRASS, &c.

SMYTH COUNTY, VIRGINIA, FARMERS' CLUB.

The regular June meeting of Smith county Farmers' Club took place at the residence of Mr. C. W. Beatie, on the 24th, and was an interesting occasion to those in attendance.

The President being absent, Vice President James M. Byars, occupied the chair.

After the usual call to order, and ordinary preliminary business disposed of, Mr. A. T. St John from committee for examination of farm last visited, read his report. The farm was that of Capt. Jas. M. Byars, and for grazing takes rank as one of the best in this section. He has upon it a small herd of superior thoroughbred short-horns, among which may be mentioned the following: The young bull "Royal Briton," Jr., the last male calf of "Royal Briton," Sr., "Elvina 3d," dam of the younger "Royal Briton," also, "Ringlet" and "Milk Maid." The last named animal commenced giving milk in good quantity and quality at the age of nine months, and continued on so up to the time she had her first calf at eighteen months

of age; she was then milked freely for two years longer, near the time for dropping her second calf.

These animals are from the herd of Mr. Coffin, at Muirkirk, Maryland, who owned "Roy Briton" when he died.

After reading the report, Mr. St. John called particular attention to a large boundary of old pasture land where the blue-grass sod appears to be giving way, and its place occupied by common cinquefoil (*potentilla reptans*) and suggested an inquiry naturally arising as to what should be done with it? To plow the field would destroy much valuable blue-grass sod, and to fence off that portion, lying as it does in the very centre of the field, would be expensive. The question he thought one worthy of investigation, and might bring to notice some fertilizer by which the growing plant might be destroyed, at the same time improve the soil.

Mr. John L. Sanders believed it would be best to plow up the whole field, and thereby put the land in a better state of cultivation. The old sod was wearing out and needed resetting. Here a considerable length of time might elapse before a profitable sod of blue grass could be made to grow upon the land, but other grasses, known unto us as *cultivated grasses* as contradistinctive to *blue grass*, which grows spontaneously, could take its place in a much shorter space of time. He was one of those who believed that we had several other kinds of grass better adapted to our wants, which, after a few years of thorough cultivation of this land would take readily from sowing the seed and yield a larger profit, both for grazing purposes and for hay. The idea once so common that we should never plow an old sod had exploded. If we desire to add substantial improvement to our lands they must be judiciously cultivated, and then reset in grass. To plow up this entire field would not be loss but rather gain. Many places were now almost useless, and the whole field must soon become so, unless a change is brought about in some way. Let the land be put into cultivation, observing a proper rotation of crops, and seed in clover, timothy or orchard grass, or what is better perhaps, a mixture of several of these grasses. Upon the same area in a short time there would be more grass of a kind preferred by the animals, and hence a larger amount of fat will be the result. We know, even on rich land, several years are necessary to secure a good blue grass sod, while upon poor land it can scarcely be grown at all.

The chair (Mr. Byars) believed the question raised in the outset necessarily involved a discussion as to the relative merits of different grasses, and he was gratified to find so much interest manifested in the matter. He had been taught in early life to believe that blue-grass food at the head of the list for grazing purposes; the older it was the better; and was now unwilling to give up that it was not deservedly so. He desired to ask the question, which produced most fat? Called attention to a piece of old sod within the bounds of his own farm, upon which he usually kept his best cattle, and which afforded the ample supply of superior grass for a larger number, and

for a longer time than the same area upon any other portion of the farm.

Mr. Sanders, resuming his remarks, said in answer to the question, that he knew it was not generally conceded, but he was of the opinion that he could put on more fat with cultivated grasses than with blue grass, as we have it here. With the former the animal was more bountifully supplied and partook of it more freely and consequently improved more rapidly. That cattle have a preference for the former, is shown when the stock are in the same field. They eat the blue grass last.

The pasture referred to by the chair is no doubt one of the finest in the country, and so long as it remains in that condition ought not to be ploughed. While it is a good sod, the character of the land is almost incomparable—certainly the best on the farm. If this sod fails, plow it up and put no other grass, or sow blue grass, which has not been the custom heretofore in this section, and a large profit must result. If we class our lands first, second and third quality, we give to blue grass the first because of its spontaneous growth, leaving the second and third classes for what we have to-day, called "cultivated grasses."

Mr. R. B. Snapp remarked that when blue grass has a good stand, and the season is favorable, it will no doubt graze more cattle than other grasses mentioned by Mr. Sanders, but will not produce as many tons of hay. These, if allowed to get full grown, will afford excellent grazing, but the blue grass, being more permanent, will last longer, though it does not stand drouth well. I find, too, that old pastures will run out; worms get into them; the ground, from being constantly trampled, becomes packed; the grass roots matted together, so that none but continued rains can wet the earth. When this obtains, it is all important to plow the land and impart new life to the soil. On my own plantation, a field of some fifty acres became almost impenetrable to water. Worms cut off the grass, and this season I have had it thoroughly plowed preparatory to resetting.

On being asked by the Chair if he could not restore it without plowing, said he thought not—that this was the best thing that suggested itself.

Mr. J. Look, of Rich Valley, in this county, who was present as a visitor, being called upon for an opinion, said: Blue grass on sandy soil seems not equal to those mentioned by the gentlemen as cultivated grasses. In his section of the county there were many old blue grass pastures, on high ground, with clayey soil, where the grazing was fine and the supply constant; but such was not the case in his own immediate neighborhood on the river, where sand was largely mixed with the soil. It was difficult to get a good set, and it was then liable to perish from drouth.

Mr. Goolsby concurred in the opinion of Mr. Look, and stated

further that old blue grass sod afforded a better supply of grass in winter, and in this, at least, was superior to any other.

Mr. Beatie believed the time usually for setting a blue-grass sod much too long. Eight or ten years are thought by many to be necessary. He has seen it done in a much shorter time.

Essayist appointed at last meeting not present; and after appointing a committee for examination of this farm, to make report at next meeting, the Chair appointed the residence of Capt. D. D. Hull for the next visit. Adjourned.

“ECONOMY.”

“He said unto his disciples, gather up the fragments that remain, that nothing be lost.”—*John. 6th ch. 12th v.*

In the application of the term economy, I wish not to be understood as meaning that contracted and parsimonious principle usually called stinginess, that closes up the heart and stifles every generous and noble impulse, but that more enlarged and comprehensive principle that prompts the farmer to husband all the resources of the farm and apply them to the best advantage.

Whatever may be said about the conservative influences exerted upon the personal character of the whites by the institution of slavery, and that it did have that effect I freely admit, yet it cannot be denied that it did, at the same time, have the farther effect of engendering habits of indolence and extravagance. This fact is abundantly proven by the sad condition in which almost every portion of the South was found at the close of the late civil war. The Southern people, always moderate and conservative and distrustful of innovations of every kind, have been slow to adopt those changes of habits which their altered circumstances have made indispensable. Many of them are still running in the same old ruts, and it is the most difficult thing in the world to get them out of them.

The cardinal virtue of economy is one of universal application, and capable of great expansion. There is scarcely an operation on the farm, or an item of domestic or household management, in which it cannot be applied, and the diligent, practical farmer will find occasion every day for its profitable exercise. Our Saviour, when on earth, took occasion to set us a notable example in the application of this great principle, when “he commanded his disciples to gather up the fragments that remain, that nothing be lost.”

Many of our farmers have energy, and work hard, and make good crops, too; but at the close of the year's operations fail to realize any profit, because they neglect “to gather up the fragments that remain”; for it is in the fragments mostly that the profit is to be found.

There are so many ways and occasions for the profitable exercise of this important virtue that it is impossible to enumerate them all. I only propose to mention a few of the most important, and the first that of labor.

Here in the South there is more money lost in the improper application of labor than in any other way whatever, and the present stunted condition of our people is due, in a great measure, to this cause. Much of the land cultivated here does not pay one-half the cost of its cultivation. It is strange, indeed, that they should persist in a habit that is so obviously unwise and ruinous. This habit was acquired when labor was abundant and cheap, and our people are so much wedded to their old habits that they have not yet realized the necessity of an entire change of these habits,—or rather they have not wrought themselves up to the point of *making* the change. Talk to them about these things, and they will acknowledge the truth of everything said, but will still pursue the old beaten track. They say that their land is all poor, and what else can they do. The answer to this excuse is, you must either confine your cultivation to such land as will pay, or you must use the fertilizers on the poor land, so as to make a paying crop, and go on and adopt a good system of improvement and permanently improve the poor land; and this can be done mainly by clovering, and by saving and applying everything on the farm that can be converted into manure.

Labor is money, or the equivalent of money, and we should exercise as much economy in its expenditure as in the expenditure of our dollars and cents. Our laborers should receive our constant attention, and be made to discharge their duties faithfully. The duty and interest of the master does not lie so much in laboring with his own hands as in controlling and directing the labor which he employs; though it would not be amiss to lend a helping hand occasionally, just to let the hands know that he is not above doing it. There is necessary, on every farm, a directing, controlling, and superintending power, without which business will not progress satisfactorily. An intelligent, practical business man can accomplish a good deal more in this way than by working constantly himself.

Time is the next item in the account of economy which I propose to notice. Time is also money, or the equivalent of money. Ah! it is very often a vast deal more valuable and important. It is so precious, indeed, that our beneficent Creator has given us but one moment at a time. How important, then, to “husband the time,” and “count the moments as they fly,” and how criminal to waste or kill time.

In order to a proper economy of time and labor, the practical farmer should maintain order, system, and discipline on the farm. He should exercise forethought, and his plans should be well digested and matured in advance. Generally there are special seasons, opportune moments for each separate work on the farm, and when each is done at its own appointed time everything goes on harmoniously. On the other hand, when the farmer gets behind-hand with his work, and one operation begins to crowd upon another, con-

fusion and embarrassment ensue, sometimes involving the loss of much time and labor.

Early rising is another requisite for the proper economy of time, and the master himself should generally be the first to rise. It is all a delusion for him to think that the laborers are going to rise up early whilst he remains in bed; and it is equally delusive to suppose that he can jump up and blow a horn, as a signal, and then return to bed and expect his hands to get up and go directly to their work as if he were present. "He arose up early in the morning," is an expression that occurs very often in the Bible, and whenever the old patriarchs had any important work to do, they always got about it early in the morning. Early rising is indispensable to successful farming.

Much time and labor may be saved by the proper location of the buildings, farm-pens, and roads of the farm. When the buildings happen to be located at one end of the farm, a great deal of time must necessarily be lost in hauling and passing to and from the daily work. These buildings, if practicable, should always be located in the centre of the farm, and as convenient as possible to wood and water. On many farms a great deal of time is lost in hunting up tools that have been misplaced. No suitable place is provided for them, and when the laborers happen to stop using them they are carelessly thrown aside, and when they are again needed, very often a day is consumed in hunting them up.

On every farm there should be provided a safe and suitable place for storing away the agricultural implements and tools of every kind, and the master should see to it that the laborers lodge them there whenever they stop using them.

There are many other items to be brought into the account of economy. There is the saving of everything that can be converted into manure—such as ashes, bones, dead animals, the droppings of cattle, &c. Dead animals should always be put into the compost heap. A dead horse will make some eight or ten loads of excellent manure, if composted with stable manure, woods-mould, muck, &c. Every bone should be saved for a similar purpose,—for bones, when composted with strong stable manure and allowed to remain in bulk two or three months, may be as effectually decomposed as if subjected to the action of sulphuric acid.

In conclusion, allow me to admonish our people to heed and treasure up the beautiful text at the head of this article—"Gather up the fragments that remain, that nothing be lost."—W. HOLMAN, *in American Farmer*.

Cumberland county, Va.

The *American Patron* does not understand why the National Grange needs a large capital, and thinks the money constituting the National Grange Fund should be distributed among the Subordinate Granges.

[For the Southern Planter and Farmer.]

TUCKAHOE FARMERS' CLUB,

OF HENRICO COUNTY, VA.

Our Club convened on the 8th of this month (July) at "Sunny Side," the residence of Mr. J. M. Vaughan. The day was pleasant, and the recent delightful rains following a good harvest served to relieve the farmer's wonted despondency, and made the day very enjoyable. Mr. Vaughan here works a large farm; he is an ardent, practical young farmer, well understands his business, and pushes it vigorously. An inspection of the premises met the favorable judgment of this severely critical Club. Besides the harvested and growing crops, we were shown some fine stock, and at its head stands "Wingfield," the fine young Hambletonian Stallion.

I give you below a few hurriedly prepared notes on "Hungarian Grass," which was read to and approved by the Club. No particular merit was claimed for it, save that it may suggest but an idea to the inquiring farmer.

Mr. James A. Cowardin took up the idea and approved of this rich, nutritious grass, and urged upon the Club their attention to the very great importance of raising an abundance of grass to sustain our lands, keep up to good standard our stock through the severe winter, and bring them out in thriving condition at the spring of the year, and with all kinds of hay for forage we might then dispense with the unprofitable and expensive pulling of fodder.

Mr. Cowardin will give us a written essay* next month on the subject of "raising grass to meet the present necessities of our lands and stock with a view to our fall seeding," and Dr Crenshaw and Perkins, and Mr. J. M. Vaughan have been charged with the duty of reporting on "Fall ploughing and the advantage of the use of the subsoil plough, with particular reference to our various lands."

The Club adjourned to meet with Mr. Thos. Johnston in August.

Yours,

J. A. LYNHAM,

Reporting Sec'y.

*[We will publish Mr. C's essay in full in our next issue.—ED.]

NOTES ON "HUNGARIAN GRASS,"

FOR TUCKAHOE FARMERS' CLUB.

We think that the time has come when there should be more diversity in our farming pursuits, and to us, at least, located around the rapidly improving city of Richmond, we should cut loose from the old idea of raising nothing, and attempting nothing in the way of farming, but the all-absorbing idea of a constant succession of corn, wheat and oats. We suppose that it must be conceded by the Club that such a practice (as experience teaches) works but an impoverishment of our soils. It is a principle—yes, an inexorable law of

nature, which no amount of theories or learned essays can estop or controvert—that solid food must be returned to feed the earth.

We deal with this subject practically and plainly, and propose no technical, chemical treatise. We will tell you, that if by the use of commercial guanos and the manipulated articles now imposed upon the agricultural community, you hope to thus feed your land and satisfy its cravings, you are but stimulating it to its death.

To grass then, in all of its forms, seeded not only in autumn and in early spring, but even in June and July we would invite your attention. No other system can be adopted now for the restoration of our southern lands, but the putting down of a large surface in grass; for the earth is hungry for it. It is strange that more attention has not been given this subject. Richmond is one of the best hay markets in this country, and besides the improvement to our lands, here we can find ready and abundant sale for every bale that we can make. Yet we neglect this and send north for our hay. But this is somewhat a diversion from the subject we were called upon to consider and report, and that is—as to the merits of the Hungarian Grass. The chairman of your committee is here able to present for the inspection of the Club, a sample of this grass (about four feet high) taken from his crop, harvested on the 6th day of the month.

Although claimed to be a species of Millet, it will be perceived, that its growth, blossom and seed are distinctively different. The seed are of variegated color, different from the white Millet seed, and heavier and richer, we think, in nutritive properties. This Hungarian Grass, we learn, was introduced into France (where now its cultivation has been greatly extended) in 1815, and subsequently introduced in this country through the U. S. Patent Office.

It is an annual forage plant and germinates readily, while it thrives best under the effects of a warm sun.

It withstands drought remarkably, and as Flint says, “remaining green even when other vegetables are parched up, and if its development is arrested by dry weather, the least rain will restore it to vigor.”

We are not able to tell you the exact chemical properties of this plant, but we can say, what may be equally as instructive, that its numerous succulent leaves furnish a green fodder, which remains green until the seed mature, and is very fattening and much enjoyed by all stock.

The cultivation of this grass addresses itself to our favorable attention particularly this year. For on account of the very unpropitious season, our general hay crop is very short and spring oats almost an entire failure. But we have plenty of time even *after* the ascertainment of this fact to make up for this great deficiency by the use of this grass. It should be sown broadcast from the first of April to the first of July) and even as late as August) at the rate of one bushel per acre, only avoid the frost, which is very injurious to it. The land should be well prepared, ploughed deeply, and harrowed until finely pulverized, and the seed *rolled in*. It is best suited to a

light or medium texture of soil, and upon high land—and not upon wet or meadow lands. This grass should be harvested when the crop is in full bloom (usually in about six weeks from the time of seeding). If permitted to remain until the seed fully mature, the stalk becomes hard and sometimes dry, and is then not so much relished by our stock. It is said to be most excellent for milch cows, increasing the flow of milk largely, but, as said before, all like it—and horses seemed particularly to enjoy it as a desirable change to them. It is a good appetizer, and its properties very fattening; and for soiling purposes no grass is better adapted. With proper cultivation it can be made to yield from two to three tons per acre. But it is necessary to remark that the Hungarian Grass may be classed as a “heavy feeder,” but upon the other hand it will repay this attention. The land should be in good condition and freshly manured at the time of seeding. Finally, we suggest to the members the seeding of one or two acres as an experiment, which will likely lead them to introduce it more largely, and retaining this green hay for their own use, they will be enabled to sell more largely of clover and timothy.

J. A. LYNHAM, }
 J. G. BEATTIE, } *Committee.*

REMEDY FOR SMUT IN WHEAT.

A farmer in Ireland whose wheat was much affected by smut, succeeded in remedying this evil by adopting a simple preventive which he learned had been practiced successfully in Flanders for many years. The remedy is a steep composed of sixty pounds of quick lime and thirty pounds of salt made into a solution sufficient to cover 600 pounds of wheat.

In order to test this remedy, he procured the worst smutted wheat he could find, and after steeping for different periods, he sowed 112 pounds, divided into four equal parts, on equal portions of land.

No. 1, merely steeped so as to cleanse it.

No. 2, steeped in the solution 12 hours.

No. 3, steeped 24 hours.

No. 4, steeped 48 hours.

At reaping time No. 1 was dreadfully black. No. 2 had a good deal of black in it. No. 3, none at all. Nos. 3 and 4 swelled very much, but did not burst. No 2 swelled also, but not so much. Seeing that No. 3, which was steeped for 24 hours, succeeded as well as No. 4, he has practiced steeping for 24 hours, and has continued to do so with perfect success for thirty-two years. He has not had the slightest appearance of smut in his wheat since he commenced using this remedy. After taking the wheat out of the steep he lets it lie in a heap to drain. In broken weather he has kept it after being steeped for ten days, turning it every day, without any bad results.

TOO MUCH COTTON.

Writers have harped upon this old hackneyed theme without effect, until many have laid aside their pens in despair; but they should hope on, hope ever, and never give up their faith. Many ministers have preached to the same people for successive years, without any apparent effect, until tempted to believe that they—the hearers—were as hard-hearted as the granite rocks that sprinkled their native hills; but finally, a great revival would break out—and O, what a change for the better!

Southern planters have been in the habit of planting too much cotton, and unfortunately the habit remains; even at the present writing, little rabbit-eared cotton adorn our hills and besprinkle our valleys—and what are the fruits now in May, 1875? Many are going about trying to buy a little corn, without either money or credit! O, ye cruel greenbacks, why have ye forsaken us? Horses and mules that looked fat and sleek in March, now begin to advertise their backbone and ribs so clearly, that “he who runs may read.” Hogs, fat in March, have lost their energy, and lie up in the fence corners, afflicted with the dry rot or red rust, I don’t know exactly which. Pigs are drawing up and swelling about the stomach, which I guess has become *filled with gas*. Even the faithful old chanticleer has apparently quit crowing; while snakish looking, hide-bound curs—that our patriotic legislators are afraid to tax for fear of losing votes—are prowling about beneath the stars, killing sheep and tearing up hen coops! But still, to make things worse, bacon is “*a rising*,” and flour’s “*gitting up*,” while cotton is hardly paying the expense of making it.

It was once thought if we could get rid of the “carpet baggers,” that everything would work right. Well, this patriotic band of gentry has disappeared. Some have gone to the North—others to a warmer clime! But still, *something else seems to be needed*.

It was once thought if we could get laws enacted to prevent debtors from paying their just obligations, and make men possessing brains support those deficient in that important element of success, that all would be able to prosper and live; but this game has about played out, and capitalists and factors are shutting down the gates—and *something else seems to be needed*.

It was once thought that the cause of hard times may be found in the fact that many of our laborers, having no brains to direct their muscles, labor and manage to a great disadvantage. There is much truth in this, but *it is not the something needed*.

Finally, the *something needed* is more brains and less cotton, in reference to the whites. “They have had line upon line, and precept upon precept,” without effect, apparently; but necessity’s iron arms are now around them; they must capitulate to common sense, or the very life will be pressed out of them.

Strange, remarkably strange, that the South could support herself

while vast armies devastated her territory with fire and sword, and while her strong, vigorous sons were nearly all upon the tented field, and now can scarcely do it, though peace reigns and genial showers fall. But the secret is easy to discover. *Too much cotton! Too MUCH COTTON!*

Since engaging in agriculture, I have invariably planted as much corn as cotton, and this year have nearly as much land in oats as cotton.—JAS. H. OLIPHANT, in *Southern Cultivator*.

[For the Southern Planter and Farmer.]

THE PREPARATION FOR WHEAT.

The preparation for wheat is a subject which our farmers have to consider and decide upon during this month, if they have not already done so.

For some years past the weather has been so unfavorable for summer fallowing clover or sod land, that many farmers have stopped trying to make that preparation for wheat; but plant corn on land that they would have reserved for that crop, and sow on the corn stubble the next year. Along with this abandonment of summer fallow, there has been a great falling off in the yield of wheat; and the corn being planted on sod or clover land, there is a great increase in the complaints to that crop from cut and bore worms.

Oats having for some years brought more money per pound (often double) than corn, I would suggest that it would be more profitable to substitute oats on all highland that is at all liable to be washed by the heavy summer rains, in the place of corn, and especially on all such hill land as will not bring, in a moderate good season, seven or eight barrels of corn to the acre.

The oats on such land, after deducting the difference in cost of cultivation, would probably bring as much or more net money than the corn crop; a less weight would have to be hauled to market, and the great loss of fertility to the land, from the washing done by every heavy summer rain would be probably avoided, which last is generally greater than would be caused by the successive removal of several heavy crops which do not cause or permit such a destructive denudation of the soil.

If, then, it be found in any summer that the clover cannot be fallowed in time for wheat, or if there is a sod field which would be left for summer fallow, but for the almost certainty that there will not be seasonable weather enough to plow it in, if we wait, instead of planting in corn, especially if it is hill land or at all liable to wash, sow it in oats, even though you have to shorten your projected corn crop considerably to do so.

Put the labor thus saved on your bottom or level land corn, and on your tobacco, and you will find that though the area cultivated may be considerably diminished, yet the crop will not be so very much shortened, and the oats will make up the difference or more.

As soon as the oats are cut—and don't be too careful about saving what grows on the poor spots, where the oats require as much time and trouble to save as they are worth—haul them up; and start your plows on the stubble, and sow some buckwheat on the freshly plowed land before a rain has fallen, if you can.

There will always be oats enough left on the ground to seed it pretty thickly, and they, with the buckwheat, will spring up with the first rain; and, in an ordinary season, by the middle of September, will cover the land with a thick growth of green vegetable matter. The ground having been plowed in the winter or spring previous, will plow easily, when a clover or sod field would be impene-trable.

About a week before you wish to sow the wheat, cross-plow the land, or, if impracticable, lay off the plow-lands so that the plow will not run in the old furrows, and if the growth is heavy, put on a chain so that it may be well covered.

Just before sowing, level with a harrow; the week's interval, will give time for the oats, whose roots were exposed by the plowing, to die, so that they will not revive on being covered afresh by the harrow, and the harrowing, besides leveling the land for the drill will kill or cover the oats, whose roots were not exposed by the plow.

The greater part of the growth not covered up, will, by that time, have so withered and shrunk, as not to prove an impediment to the drill, while the two plowings and harrowing will leave the land as fine as an ash-bank.

This is not theory, but my own experience on about twenty acres of land, which I thought too poor to bring a paying crop of corn, or even oats, but as I was anxious to improve it, and get rid of the running briars, with which it was covered, I tried the above mentioned treatment. I only got about ninety bushels of oats, but the hill was not washed, as the hills in corn were, and in September it was clean of briars, and hid by a growth of green matter six inches high. After turning under, &c., I sowed about 28th, 30th of September, one bushel wheat to the acre, with two hundred pounds Eureka guano on half, and the same quantity of Guanahani on the rest; being one ton of each on the twenty acres. The soil is mostly pure red clay, with some gravelly places, such as is common along the southwestern mountains, naturally good, but badly worked down by eleven years tenant's cropping. The Eureka cost \$50 per ton, cash; the Guanahani, \$40 cash, making the cost per acre for guano, five and four dollars respectively.

I have not threshed the wheat yet, but would not take ten bushels per acre for it. I think it may yield twelve bushels.

Adjoining land of the same quality which was sowed in wheat the year before, after a late oat fallow, without the second growth being re-fallowed and fertilized with 200 pounds of Eureka, brought only six bushels per acre, and has no clover on it, except in the depressions, and very little there. This year the land re-fallowed, &c., has

a tolerable sprinkle of clover, in spite of the cold spell in April, and subsequent dry weather, which was so destructive to our grass crops. If the difference is owing to the green stuff turned under, it will show that green manuring is worth more to such land than guano.

I watched the growth and general appearance of this wheat pretty closely all through the season, as I considered it a pretty fair test of the relative merits of the two fertilizers, the land being of pretty uniform quality, and all sowed in about three days. Until late in the spring there was no perceptible difference in the wheat, but before harvest the heads, where the Eureka was sowed, seemed longer and the straw larger; and, I believe, there is a difference of about two bushels per acre in favor of that guano.

Putting the wheat at one dollar per bushel net, and deducting the extra cost per acre of the Eureka, over the Guanahani, it gives me a profit of one dollar per acre, for the land on which the Eureka was used, over that on which the *same quantity*, net value, of Guanahani was sowed.

I am inclined to believe that if I had used the same value per acre of each, viz: 200 pounds of Eureka, and 240 of Guanahani, there would be no perceptible difference.

Considering the trouble of hauling and handling the greater weight, the Eureka, at \$50, is cheaper, I think from my experiment, than the Guanahani, but if the price of Eureka has been raised to \$57.50, as I was informed last spring to be the case, then my experiment, I think, demonstrates that Guanahani, at \$40, is the more profitable guano to use on such land as mine, if the company keeps up the standard, which is not always done after a fertilizer makes itself a reputation.

I hope some of your other readers will give us their experience in the preparation of land for wheat, and use of fertilizers, in time for us to be guided by it in sowing the next crop. I would like to have been able to give you exact measure, instead of my estimates as to results, but if I put off writing until I thresh my wheat, you would not be able to publish the results in time to be useful to the farmers this season.

H. M. MAGRUDER.

Charlottesville, July 14th, 1875.

[We hope our correspondent will, if possible, weigh or measure the products of the two fertilizers separately, and report to us, as we think such results ought always to be given to the public.—Ed.]

[For the Southern Planter and Farmer.]

PLAIN TALK TO FARMERS.

Wherever I go the cry of hard times assails our ears, until I could wish to be entirely destitute of hearing, and but for feeling a good share of it myself I might not send you this brief article. Last week it was reported that the banks in New York were overflowing with money on deposit and interest at two and half per cent. per

annum, and the Federal Government about to issue \$60,000,000 more in coin. This looks a little strange, and yet is in striking contrast with the want of money all through the South and West. If people will buy more than they sell, the result is the same; money will accumulate in the North and the cry of hard times will continue. With the issue of more money, goods are *immediately inflated*, but *land* is the *last* thing to feel the influence of an increase of money, and if there was a guarantee of holding and keeping money in the South and West, a little more or a good deal more would be very acceptable. But I doubt the prospects, and the surest way is to try and live within one's means. If our income is \$500 or \$1,000 it is better to reduce expenses and pay as you go. Let us come more plainly to the matter. Try a dairy farm and attend (not pretend) to it. If the farmer has boys or girls or a wife, let the milking and churning be done by the family. If cooking can be done without producing prostration of body and sickness, and doctors' bills, let that be done also; and the \$150 in hire and food can be saved, and each member of the family practically educated in household duties. If the members of the family attend to their own rooms there is the saving of another \$150. If the head of the family can do without a horse there is a saving of \$150 in food which the horse eats. If there is \$50 or \$100 spent in ardent spirits there is a saving in *every* respect. If the members of the family can do their own sewing there is a material saving. If the family have no sewing or washing machines let them enter the Grange and buy a number one Whitney Sewing machine for \$35.00, or a superior Washing machine at 50 per cent. discount from regular rates. By doing their own work they will save several hundred dollars in money, will acquire habits of industry and economy, and build up a bodily constitution, out of which doctors cannot get the chance to make bills. Suppose we go a little farther and look into the grocery items. Stop buying jellies, and preserves, and pickles, and lots of other things which ought to be made at home. If any money be left let it be spent in adornment of your house and in the purchase of useful books (not trashy novels) instead of the decoration of the bodies of the children and grown ones in tinsel and all the gew-gaws of the changing fashions. If farmers would educate their children to cultivate their brains and their hearts instead of their pride, more domestic happiness and more money would abound. This is where the shoe pinches. The old absurd notions of bodily labor being degrading has to be uprooted entirely. It is no more disgrace for a wife or a daughter to do her work in milking the cow, cooking, sewing and all manner of household work, than it is for the husband and son to chop wood and cultivate the land. If farmers would carry out these views many of them might save themselves from bankruptcy; but they must try to keep up appearances and pretend to be supporting their families when in most cases they are living on other people. The disastrous failures of merchants, &c., are owing to the large unpaid bills of

farmers, whose families have been too proud to labor, and whose legacy is generally a life time of grinding poverty and domestic unhappiness. Such a course followed throughout life by any family will save thousands of dollars, and will redound to the industry, intelligence and health of each member—constituting what ought to be of first importance, “*Sana mens in corpore sano.*” If farmers will continue to mimic the fashions and fooleries of people far above their means, the cry of hard times will be continually heard, and what is worse, they will not be able to meet with any success in their calling. They will starve their land and starve their stock, and in the end will starve themselves. Who has the great want of the times—the *courage* to stop their household expenses before poverty comes in at the door, full banded and drive the family out of doors to log huts and dirt floors.

C. R. C.

[For the Southern Planter and Farmer.]

TO THE LITTLE FARMERS OF VIRGINIA.

Had we little fellows been cutting our garments in everything since the war, strictly according to our cloth, how vastly different now would be our condition and the general prosperity of Virginia; and the sooner we now begin the better for us all. Learn to do within ourselves all we can; quit buying and go to making for ourselves. Make your own peas, buckwheat and rye for fallows. Buy agricultural lime, salt and plaster, they are cheap, and we know them good and reliable. Use them together freely and you will never regret its use. I speak from experience. I have made from the pea fallow 10 bushels of wheat from one seeded; from buckwheat fallow eight for one; from the high price manures made at the Charlottesville manufacturing company, three for one, all seeded in time and farmer like, the very best preparation in my life, and all the same year, as fair and honest a trial as was ever made any where and by any one. Now count the cost and profits and decide for yourselves. I am in receipt of a letter written on the 9th from near Fredericksburg, Va., which says, “After oat harvest last year he seeded buckwheat for a fallow for wheat that day, the 9th of July, he had threshed out 25 bushels of wheat to the acre.” How many buyers of high price manures can say the same. Then count the cost. I contend with peas and buckwheat as a fallow with two bushels oyster-shell lime, a bushel of salt and a bushel of plaster, per acre, I can beat one half the manure buyers I have seen, and if the dose will be repeated in January or February, it will beat them all. Now let all we little fellows try an acre if no more, and report honestly next fall through the *Southern Planter and Farmer*, give it a fair trial, and all Virginia will go to it in full faith next year. Then will old Virginia begin again to unfurl and hoist to the breeze her gay, cheerful and prospering colors to an admiring world.

I got some agricultural paper sent me from somewhere, I can't say

from where, as in my feeble condition I am unable to find it, or I would send a copy of the well written article to your *Planter*. The article says all his money was laid out in a rather poor farm, and stock to work it; had no money to buy manure, too uncertain to extend his credit, he resolved to try a standing lot in tobacco, around his tobacco barn near his dwelling. He raked up all the manure he could and applied it to his lot, and put it in tobacco; the crop was meagre, owing to the thin application of wasted and spent manures. When giving it the last working he sowed rye and a bushels of plaster per acre. Next May and first of June he plowed in a good crop of rye, harrowed in good nice order, reversed the colter in its beam and marked off very slightly in checks, drew up a small flat hill and worked the tobacco without disturbing the rye which gave moisture and food for the crop which kept green and grew during a dry season, when manured lots failed. Made a good crop and thus continued the rye and plaster without any other manures; and the crop of last year was the fourteenth crop, which was the best crop he ever made and of better texture than any he ever saw from manured lots, and never had a cut worm. All his manures were applied to other crops and lots, and he had made better crops and improved his lands and his own condition more than any one of his neighbors. Now the rye he made, the bushel of plaster he bought, count the cost on his tobacco lot, and the high price manures others have been buying, and go do like him, and you will, like him, do well. There is so much good practical sense in this article, I shall make my tenants try the rye this crop; on its last working will add two bushels of lime and two of salt on the rye in January and February, or on the rye at the time of plowing it in. The salt I know from experience to be good for tobacco; have seen it prevent its firing in the field. Now little fellows, for there are more of us than one would suppose, let us all try a little of pea and buckwheat for our wheat crop, and rye for the tobacco, and report, and let us all try to rally from our long line of little fellows to what we are to be thrifty big fellows. Great luck to all sensible little fellows who will wisely try it.

Yours truly,
JOB LITTLEFELLOW.

[We are happy to find JOB a man of wisdom as well as of patience. There is a good deal of common sense and wholesome advice in his article.—Ed.]

[For the Southern Planter and Farmer.]

THE WHEAT CROP AND SHEEP RAISING.

Here, on the Atlantic slope, the wheat crop has become so precarious and uncertain, and prices so low, that the conviction is forcing itself upon us, that we must either discontinue its cultivation in a great measure, or so modify and change our present system as to make its cultivation more remunerative. Under present conditions the farmers of Virginia are sinking money in the cultivation of wheat. There is no doubt about this, which a plain statement

of facts will show. The average yield of wheat in Virginia is about eight bushels per acre. At \$1.10 per bushel, which is about an average net price, the gross product per acre, including the straw, would be about \$10, every cent of which will be covered by the cost of cultivation, leaving other incidental charges with which the wheat crop is justly chargeable, a dead loss.

What is best to be done under this state of things, is an important practical question at this time. The first and most natural conclusion would be to discontinue the cultivation of wheat entirely as a leading staple crop. But extreme conclusions either way are generally erroneous, and a little reflection will convince us that it would be unwise to adopt so radical a change. We are bound to keep up its cultivation, but upon a system much modified and changed. We must cultivate smaller crops, and only upon such lands as will yield from 20 to 25 bushels per acre. Here, in the tobacco-raising regions, our main chance for making wheat is from the tobacco lots and clover fallow. Wheat scarcely ever fails to grow well on tobacco lots, and by applying from 200 to 400 pounds of some good fertilizer per acre, in addition to what was applied to the tobacco, a paying crop may be made. And in the case of a clover fallow, if a good crop of clover can be turned under, the fallowing done early, say in July, and a thorough preparation made and seeded in time, remunerative crops may be also had from the clover fallow. The old practice of cultivating ordinary corn land in wheat, either with or without fertilizers, is simply ruinous, and should not be thought of any longer. Let the corn land remain for oats in the spring.

This radical change in our system of wheat cultivation, will make it necessary to supplement the wheat crop by something else. And the first and best chance is sheep husbandry. Here, in Virginia, where there are such vast quantities of open lands not cultivated, immense numbers of sheep might be raised and at so little cost as to make this branch of industry exceedingly profitable.

The climate of Virginia is most admirably adapted to sheep raising. Our winters are often so mild that sheep may be subsisted almost the entire winter without feeding. A few years since, the writer carried his sheep through the whole winter with only one day's feeding.

The only obstacles in the way of sheep raising in Virginia are, negro stealing and dog-killing. These two obstacles make up the universal standing excuse for the neglect of this very important interest. Now, in the first place, there is no branch of business either in connection with the farming interest or any other, that is not attended by its own peculiar difficulties and drawbacks, and those incidental to sheep raising are no worse than others. But there are none of them that cannot be overcome by the proper care and attention, which are indispensable to success at anything. In the next place, there is a remedy for thin soils attending sheep raising, and that is to pen them every night, and keep a sharp look out for the dogs

and sheep stealers. Suitable enclosures should be provided, as near the homestead as possible, and it should be made the business of some one on the farm to pen them every night. Until a few years back, the writer, in common with others, was a constant sufferer from these depredations from dogs and rogues. But about three years ago, he determined to try this remedy of fencing, and the result has been that he has not lost a sheep in this way since. And for the benefit of others I will give my plan of management. For this purpose I have two small lots of two to three acres each enclosed, very near my dwelling-house. On one of them is a large comfortable shelter, closed up on the north and west sides, and open to the east and south. During the winter months the sheep are penned regularly, and fed when necessary. In the spring they are taken off of this lot, which having been manured and enriched by the droppings of the sheep during the winter, is ploughed up and cultivated in vegetables. The sheep are then penned on the other lot, and continued then until the fall, when they are returned to the winter lot. The second lot has been put down in grass and furnishes the sheep with grazing during the night. This lot is also enriched by the droppings of the sheep, and my plan is to put it in turnips every third year. This plan might be improved upon by having three lots instead of two, so that the two summer lots might be alternated by grass and turnips. Here, in Virginia, where there is so much vacant land, every farmer should keep a flock of sheep, for it would not only enable him to live better and make more money, but it would also enable him to improve his land. Again, here in Eastern Virginia, there is too much reliance upon bacon as a diet, which is not only more costly but is also unhealthy. Beef and mutton are much cheaper and vastly more wholesome.

In regard to the dogs, I keep none myself, and make it a rule to shoot every one that comes on my premises unaccompanied by the owner.

In order to show how remunerative sheep raising may be made, I will mention a few examples. For the first I refer the reader to Col. Ruffin's letter upon the subject, published in the January number of the *Planter and Farmer* for 1874. Col. Ruffin states, that in 1872, he realized a profit of 237½ per cent upon the cost of his flock for that year.

I will farther give two other examples that have come under my own observation. A gentleman of my county a few years ago, commenced with less than a dozen sheep. He has ever since been gradually increasing his flock and his yearly profits until the present year, when he has sold lambs and wool enough to bring some six or seven hundred dollars.

A near neighbor of mine a few years ago purchased 100 sheep, for which he paid \$300. The first year thereafter, he sold very nearly enough lambs and wool to pay for the whole flock.

There is no doubt of the fact that sheep husbandry might be made

exceedingly profitable in Eastern Virginia, and it is the strangest thing in the world that our farmers should not put sheep on the poor lands, instead of cultivating them with hireling labor, or allowing them to grow up in old field pines and broomstraw.

SOUTHSIDE.

[For the Southern Planter and Farmer.]

LETTER FROM ALBEMARLE.

Your very kind favor of the 6th, with its accompanying good papers, reached me on the evening of the 7th, for which please accept an old friend's heartfelt thanks. The time at which they reached me seemed so appropriate, for I was then feebly reclining in my old arm chair, slowly recovering from a very severe and almost fatal attack, caused by a visit to my farm, which proved to be far too much for the little strength remaining to me from the attack of paralysis one year ago from the fifth of this month. I was at the time silently musing over the happy, prosperous times the good old *Planter* and its many prosperous writers and readers then so much enjoyed, and so generously divided with all, coming from everywhere—then when the good old Virginia hospitality was a familiar household word the world all over. Alas! where now are so many of its cheering and instructive writers and its kind, warm-hearted readers? Gone where you and I must shortly go. How sadly different now is everything in Virginia to what it then was. It is, indeed it is, a most sad and sickening picture for any, but more especially for we Virginians, to contemplate; but clothed in the dark drapery as Virginia's prospects seem of late to have been, I cannot help thinking, believing, and most fondly hoping there is a far better and more prosperous time in the overflowing lap of an early-coming future to cheer up we desponding sons and daughters of our noble old parents of 1776, by which our spirited, noble young Virginians may and will be encouragingly stimulated not only to rebuild, but to far excel, any point of prosperity Virginia has yet known.

God gave to our noble old ancestors a most glorious country and climate on which to operate, and well did they faithfully perform their whole duty, and most liberally and lavishly did we, their descendants, enjoy and divide with all and every one, coming from any and everywhere. It is now lost to us, and sad was its loss, and most grievously felt by the world. No wonder so great a shock should have thrown us all into the great confusion which has thus reduced us to what we now are. But, my dear sir, is it not our duty to our God, to our country, to ourselves, and to those dear ones coming after us, even trembling as many of us now are upon the very verge of our graves, to wake up, arouse and rally to our mightiest effort, to find out and establish some firm foundation of improvement which all may safely follow and by which all can surely prosper, and so train those so dear to us all to act and do for them-

selves that we may have the sweet consolation on our death beds of believing that they can and will make our dear old State what we all so well know Virginia can and ought to be—the bright, cheering, happy home of the truly good and the great.

We Virginians still have our fine productive lands, our pure water and invigorating climate, and we are still a warm-hearted, generous, clear-headed people. All we now have to do for a full development of Virginia's great resources, is simply to give all of these our well known blessings a fair chance. We of Virginia and the sunny South were reared in those grand old times of almost universal prosperity, to look almost exclusively to the *Bulks*, which in those thrifty times were generally so entirely satisfactory as by them to be fully able so to cover over all of these little deficiencies as rarely, if ever, to be annoyed by them. But ah, it is not so with many of us now. We sadly feel and clearly know it. Then let us honestly acknowledge and wisely act upon it; for those cheering, grand old *Bulks*, when now ever made, are too often like the Indian's gun—cost more than it comes to; and these thousand and one little things rise up thickly on every side to oppress and worry us. In truth, we southerners have committed many great and grievous blunders; but so did our great and good Gen. Lee, the sainted Jackson, and the many thousands of their brave and generous compeers. The great wonder is we all had not committed greater and more of them. One great and sweet consolation is, we all did our very best.

Now that the echo of battle has been hushed and its smoke cleared away, and we have become a calm and reflecting people, do let us resolve to show to an admiring world what they have a right to expect of us—that we are Virginians still, and that we can and will make our dear old State, rudely misused as she has been, Virginia again. What a great and thrilling incentive to us all to rally and do our very best; and may our wise and good Heavenly Father aid and bless us all to the full accomplishment of fully reinstating Virginia at least to what she once was, the good, wise, and great elder sister of the world's wide renowned, the gallant Old Thirteen (13). To effect which we must bring our clear Virginia brains to a calm and manly reflection, correctly calculate our liabilities and fairly estimate our resources, and then honestly meet our creditors and come to a good old Virginia honest, fair understanding; then, like Virginia men and women, boys and girls, go to work, and by the blessings of God we all will soon find it an easier, more pleasant and successful road than going to law with the troop of hungry, heartless lawyers yelping us into a disgraceful and ruinous defrauding of those we justly owe, by which we too often find the creditor but little if benefitted at all, we are ruined, and the lion's share divided between the clerks, sheriff, and lawyers.

My dear sir, in those good old times for which we now so often and uselessly and sadly sigh, was there not (to secure success) such an indispensable article as Preparation? Have we been, or are we

even now, prepared for the great change which has come over almost all and everything left us? I fear we are not. Then our great success and ample means placed us far out of reach of any and all the little things; but now there is so rarely such a thing as success in the greater things, and we are left too often sadly floundering helpless and alone amid the troubled waves of little things thickly gathering all around us, have not our agricultural writers committed a mistake in writing too glowingly of the few isolated instances of high success, thus tempting too many to try and do likewise where so few were able, and thus more deeply involving so many? Why tell a Virginia farmer of the high pressure farming of our successful countryman, Mr. B. H. Brenhan, of Carlton? He has the means, and well and wisely is he using them for the amusement and profit of himself and children, and to the perfect and beautiful development to all observers what Virginia can and will do under proper care and effort. But, alas! who of us can do likewise? None—no, not one. Then, whilst we with grateful hearts ask a God speed to him for all his noble, generous efforts, hadn't we little fellows better be wisely turning (at least until we can do better) our attention more closely to the little things upon which we and ours now so much depend for peace, happiness, and success, and humbly learn therewith to be content? Do this, and we will have well secured the ticket which will safely and surely land us at the desired depot of a clear conscience, good spirits, and ample success.

Now, my dear sir, will you and your many readers kindly forgive an old friend for writing of facts he saw with his own age-bedimmed eyes on the last three visits to one of his farms, anxious to know how my clover and the grass seeded on the wheat land had taken. Feeble as I was, I slowly walked over the field, and was surprised to see the seedsman could then be traced by the deeply-impressed footprints as he varied in width, from fancy or inattention. The land had not all been seeded, because the seed had given out, owing to too thick sowing. I had directed a lot to be seeded at the rate of two bushels of orchard grass per acre, and a lot to be seeded in Randall grass at the rate of a half bushel to the acre (thicker than I had ever sown it before) for seed another year. The orchard grass and Randall grass were continued at the rate of two bushels or more per acre until all was thus wasted. I had directed, after the two lots were seeded at the rates above stated, the remainder of the seed should be applied at the rate of a half bushel of orchard grass, a gallon of Randall grass, and a half gallon of clover seed per acre, for hay and pasture. The clover seed made on the farm was (pugy) mixed with the oat chaff, with which I had directed the chaff from the orchard and Randall grass seeds to be well mixed for the purpose of sowing about 70 acres of land my tenants were to have prepared and seeded with winter oats. The gentlemen renters were absent, and their three hired freedmen were hauling out and seeding a field of 70 acres, seeded the spring before, which had been badly

injured by chinch-bug and drouth, because my tenants had failed to prepare the oat field. I rode down and was surprised to see them throwing it out from the wagon as if carelessly trying to fill gullies. I halloed to and stopped them. It was the last load but one. I showed them how to sow them; how long they continued as I directed, they may know; I do not. The seed, which was ample for the 70 acres, was thrown in dabs over from two and a half to three acres, and of course thrown away. Query: May not the failure of our grass stand since the war be justly attributed to this carelessness, inattention, and often thefts?

My last visit was on a Saturday. The orchard grass seed had been cut on the morning before, and the dew hardly had time to dry out of the bundles, in dozens as it was. My good tenant said he was going to haul it up that evening. I advised him not to do it, for he had more hay then spoiling from not being timely secured than he could well attend to that evening, and let the orchard grass seed alone until Monday; then take a sheet and shake and knock each bundle with a small stick, and he could save more good seed than if he were then to haul it to the machine, and damp as it was it might spoil; and I could clean it better by the wind than with the wheat fan, and it would then do to put away in the boxes. I was too feeble to do more than advise. I heard they were hauled up, and, from the yield, fear the best were lost. Now, it is these and other little things that keeps so many of us little fellows' noses to the grindstone, of which I will more fully write in my next, if desired. A widow lady uses an empty flour barrel and saves them all; she runs the head of the bundle in the barrel. She keeps a boarding-house for the students at the University of Virginia. She put a single head of fresh fish in the corn hill in her garden. I counted eight shoots on one stalk—frequently seven. Those under which none were put was not half so high or luxuriant, and no shoot developed. If the farmers of Virginia would take a lesson of her, repudiation, hard times, and croaking would soon give place to cheerful prosperity.

Yours truly,

G. C. GILMER.

[For the Southern Planter and Farmer.]

ORCHARD GRASS.

I have written several articles on orchard grass, but as I consider it a subject of the greatest importance, I hope I may be excused for keeping it constantly before the public.

All things considered, there is no grass that can rival orchard grass as a general farm grass. What are the uses of grass on a farm? Hay, pasturage, improvement of the soil, and grass seed. There is certainly no grass that will make as many pounds of hay to the acre and yet be equal to it in quality; it is fully equal to timothy in quality, and will always make more hay. As a pasture grass it

is *fully* equal (and I think superior) to our native blue grass, which is hard to excel. As an improver I consider it better than clover, for this reason, it forms a heavy compact sod, and the bulk of vegetable matter will weigh three or four times as much as the clover on the same ground. This though not equal in quality, as an improver it excels in bulk more than enough to make up the difference. Good land well set will produce from 15 to 25 bushels of seed to the acre, and as it costs but a few cents a bushel to cut it and thrash it, it is one of the most profitable crops we can raise. No one can fully understand the value of orchard grass, until they have used it a few years. If you have a field set in orchard grass, you are certain of *some* hay, let the season be wet or dry, hot or cold. There are thousands of farmers in the United States who do not know what orchard grass is. My advice to them is to get twenty pounds of good clean seed, sow it on an acre of *good* land, wait until they make the crop the second year, (it never makes much of a crop the first year) when I think they will be disposed to sow a field or two. I sow in August or March. If you want it for seed, sow no clover with it, otherwise, sow twenty pounds of orchard grass and one gallon of clover to the acre.

W. F. TALLANT.

[We are disposed to place orchard grass above every other grass for Eastern Virginia, and fully agree with our correspondent in his estimate of it as a hay or pasture grass. But we must dissent from his opinion of its value as a fertilizer. Nothing in the shape of a green crop can equal clover in this respect on land where it will grow, and any land that will produce a good cover of orchard grass will also produce a good stand of clover. On any such land we believe that the roots of clover alone after cutting the crop off would be worth more than the whole crop of grass if turned under when at its greatest bulk. From seven to twelve bushels of seed per acre has always been considered a good yield, and it will more frequently fall under the lower figure than go above the higher.—ED.]

FARM TOOLS AND MACHINES.

Tools are required on every farm, and on most farms of any size machines are all used. Consequently every farmer is interested in the subject of this article; he is probably aware that his success or his failure in business will in part depend upon the kind of tools and machines which he employs. With poor tools and inferior machines he cannot successfully compete with his neighbor who uses the very best. Yet it is probable that he has never carefully considered *how much* difference it makes with a farmer's work whether he has poor tools or good ones. Take, for example, a common shovel; set a hired man at work with one that is thick, heavy, dull and rusty, and, if he is faithful at his work, he will get tired out long before night, and will not have accomplished as much, by at least a fifth, as he would if he had been provided with a nice, bright, sharp shovel. If he is not a good man to work, he will take advantage of the old

shovel to shirk as much of his labor as possible. In either case, a man will do enough more work in a few days with a good shovel, to pay for it, and not be near as tired as he was with the old one. With machines, the difference is still more striking. A man with two horses and a second-class harrow, can, in time, fit a ten-acre field for sowing to wheat. But the same man and team with a first-rate pulverizer will fit the land much sooner, and do it so much better, that it will produce from five to ten bushels more grain than if fitted with the old harrow. By using the very best styles of reapers and threshers, the time and labor of one or two men can be saved, as they do not require as much help and attention as the older and poorer patterns. These facts would seem to make it an object for farmers to use some care in the selection of their tools and machines; too often they buy what the agent brings, without making any special inquiry concerning its merits, and find when it is too late that they have made a serious mistake. It is a far better way to examine the different styles of machines before buying. In selecting a machine, the buyer should try to get one with as many merits and as few defects as possible. It should be as light as possible, yet possess the requisite strength, and should run easily. A heavy, clumsy machine is hard to move or to use. Light running machines are generally made on better principles than those which run extremely hard. It should also be durable. Some machines will last as long again as others which cost as much, or more. And prices are so high that it is an object to get those which will last a long time. But it is not only important to have good tools and machines, but it is also necessary to take care of them, otherwise they will remain good but a short time. The best shovels, hoes and rakes, the finest reapers and mowers, the nicest threshers in the world, if badly used, and constantly exposed to the weather, will soon become very poor. Ill usage and exposure spoils more tools and machines than are ever worn out by use. A good shed in which to keep all the farm implements, is a building which ought to be found on every farm. The farmer who has none, will find the money expended in building one invested better than it would be in government securities. It would save him from constant and heavy losses, and prevent a great deal of scolding about old machines which constantly fail when wanted for service, but for which failures the owner alone is to blame. Machines are often injured by not being properly oiled. A reaper or thresher will run very much easier if frequently oiled, and will last for a long time. But if the oiling is neglected, it will run hard and wear very fast. Oil costs but little, and should be freely used. Let no one imagine that I favor throwing away all the old tools and machines, and buying new ones to take their places. Far from it. The farmer who has good tools, even if they are old, can much better use them than to buy new ones. The same is true of machines. If they are in good order, do not run very hard, and do the work well, they should be kept a while longer. If, however, they are badly worked,

run extremely hard, and are in danger of breaking every time they are used, it will be economy on the part of their owner to lay them aside and obtain better ones to fill their places. And when buying a machine, I claim it is economy to "get the best," even though it costs a little more than one which is not as good. What I have said about the care of machines, applies alike to the new and old. No tool or machine which is fit to use, is too poor to be taken care of, and if proper care were taken of them, there would be much less trouble with all kinds of farm implements.—*Live Stock Journal*.

THE FUTURE OF THE POTATO CROP.

Will the beetle destroy the potato crop and make the growth of this important edible either impossible or greatly restricted? We give a decided *No* to both these questions, frequently asked of us personally, and almost every day suggested by the fears of our exchanges.

The potato is far too important a crop to be stamped out of existence by the beetle. Intelligent and enterprising farmers would find means of growing potatoes enough for general use were the difficulties fourfold what they are. Possibly the price of potatoes might be doubled, or even trebled, but the use of the vegetable would not be discontinued, and its production would be more profitable than ever before. Potatoes have always been too easily grown. Hence the price has been low and the farmer has not had fair pay for the hard work which handling a potato crop implies. Henceforth, by doing some additional light work in destroying potato beetles, by planting on better soil, and giving better culture, the crop will be larger, the price better, and the receipts perhaps trebled, at a slight additional cost per acre. The potato beetle will, without doubt, increase the price of potatoes somewhat, and in this the consumer must suffer; but farmers who know how to deal with the enemy can and will make more money from potatoes than ever before. The potato is henceforth transferred to the list of crops not easily grown, and therefore always most profitable. It is skill and patience which best pay in farming and not brute strength, and these are what potato culture needs. So long as it was a business that mainly employed strong arms and backs in digging and securing the crop, potato growing was not a very inviting occupation, however profitable. Now, by the perfecting of machines for planting and digging potatoes, the manual labor has been reduced 50 per cent. It is now a question of moral and intellectual qualities, and only those farmers will succeed who are able to see what is needed and have the perseverance and patience to do it. In less words, potato growing is to be in fewer hands until a larger proportion of American farmers are more thorough and successful in their business.

The potato beetle, in common with most insect enemies, will prove a blessing in disguise to American Farmers. Many of them may

not see this now, but ten or twenty years hence they will. The midge in wheat compelled farmers to prepare their ground better, to put in seed more carefully, and to manure better than ever before; and we believe the potato beetle will ultimately have as good an effect on growers of the potato. There is neither reason nor religion in despondency. Reason and experience tell us that when any insect becomes too numerous, something is sent to check it, and we are told in the Good Book that while the earth endureth, summer and winter, seed-time and harvest shall not fail.—*Rural New Yorker*.

THE STEAM PLOUGH AT WORK.

The Vicksburg *Herald* gives the following account of the working of a steam plough on the plantation of General Wade Hampton, near Skipwith's Landing, Miss.:

The apparatus consists of two portable engines, which are so made that they run themselves without the aid of horse power over any road or field. The engines are placed at opposite sides of the field, and by means of wire ropes, four hundred and three yards long, draw a gang of ploughs from one side to the other. The ploughs cut the soil to any depth required, and at a rapid rate, faster than a man can walk. There are different sets of ploughs, for deep and shallow ploughing, for subsoiling, for extracting roots, and for making cotton beds. The latter is the most interesting, and makes a complete cotton bed of over five feet wide at one operation. They plough on an average of twenty-five to thirty-five acres daily, and can do even more on loose soil. The engines are also useful for much other work. The General has a large saw-mill, which these machines take with them to the woods to cut lumber and make fencing. The heavy and broad iron wheels of the engines help to make good roads, and there is no better road in the country than the one through Hampton's Walnut Ridge plantation, five miles long. A few days ago one of these engines came down to the wharf-boat at Skipwith with six large wagons in tow. These were placed on the boat, heavily laden with lumber, and the "train" then started for home at a lively rate, crossing one of the levees. It would have taken twenty-four good mules to have pulled those loads. Another time the engine was "hitched" to a good-sized house, and moved it back from the river bank several hundred yards in about twenty minutes, as fast as the men could keep the rollers under it. It is the intention of General Hampton to make these engines haul all his cotton to the river this season when the weather is favorable.

FARMERS should remember that the warm season is the time to put flesh upon their wethers and other sheep, intended for sale. A little grain fed in pasture will be repaid fourfold. The pasture will keep up condition and the grain will lay fat. Grain is worth two prices fed in warm weather. The best time to feed grain to sheep is in October, November and December.

[For the Southern Planter and Farmer.]

AGRICULTURAL CLUBS.

I know not what better service I can render to my brother farmers, than by urging them, and, if possible, inducing them, to form agricultural clubs in *every* neighborhood, after the manner and for the purposes of many organized in this county before the war, and revived since.

A simple statement of the *modus operandi*, and the results that have followed, will constitute the strongest argument I can urge for the adoption of the plan.

I. From twelve to twenty of us meet in rotation every month at the residence of some one of the members (the place fixed at the last meeting), at 10 o'clock A. M. As soon as a quorum is present, the club is called to order by the president, and a committee of not less than three is appointed, who proceed at once, with such other members of the club as may choose to accompany them, to make a careful and minute examination of the farm, cattle, hogs, sheep, outbuildings, fencing, gates, garden, farming implements, style of cultivation, condition of the crops, &c., and thereupon to make a report in writing to the club, wherein "they nothing extenuate or set down ought in malice." The report is then open to any comment that any member may choose to make.

The benefit to be derived from this course of proceeding is obvious. The member knows before hand that his whole management will be scanned and criticised, when there is evidence of want of skill, attention and judgment, while if his farm, cattle buildings, &c., display the exercise of these qualities, he will receive a due need of praise. Now what can influence our conduct more than the desire to escape just criticism, and to obtain commendation? Then these two forces will be constantly operating on the members to "keep their households in order," knowing that soon a "chiel will be among them and faith he'll print 'em." What a spur this is in the sides of the member to give proper care and attention to the farm and everything go on at *proper* time, and thus consult economy and profit, knowing by practical experience that "a stitch in time saves nine," and abandoning the too usual custom of "putting off till to-morrow, what should be done to-day."

But you will inquire, have these visitations of the club worked this revolution of management and products in the case of any of your members? I answer, yes. I will confine myself to the specification of one of the cases, without giving name.

More than eighteen months ago, for the first time, the club met at his house, he is a farmer on a pretty good scale for our region, with some 1500 acres of land, and some fifteen or twenty horses, mules and colts, &c., &c., and other things corresponding, a man of intelligence and highest worth, but who, engaged in other matters, left the farm mainly to others' management. When the committee read their report, I really sympathized with what I knew must be his mortification under such an excoriating report—stock quite numerous—of cattle, sheep, hogs all in bad order, and showing want of proper care and attention; crops of all kinds, indifferently and badly cultivated, stable and grounds around in very bad order, &c., &c. At the conclusion of the report he very quietly remarked, he reckoned that it was a just and candid one; and that now that the disease was known, he would look out for remedies for a cure.

Well, a little more than twelve months after, in regular routine, the club again met at his house.

I was one of the committee to examine and report. We went over the farm and examined stock, crops, &c., &c. Remembering our last visit, we were no little surprised *voilà tout est change*; everything is changed, the crops in fine order, wheat, oats, corn, all, and a good crop; sheep, cattle, horses and hogs, all, in fine condition; pasturage good; barn, stable and barn yard, all showing admirable care for the accommodation and comfort of stock; fencing, outbuildings, &c., &c., all right; garden ditto.

I carried the report into the parlor, after reading it to the club, and read it to his family, when they exclaimed, how gratified we are, for father was much annoyed by your last report, he has frequently referred to it, and told us he would see what could be done by the time of your next visitation, and we are as much pleased as we know he is, at his having succeeded so well. It is as true in agriculture as in politics, that vigilance and care are as much the price we have to pay for success in the former as for liberty in the latter. And this reference to the importance of our consciousness, that our work has to undergo the examination and criticism of others, reminds me of the conduct of a very intelligent and successful farmer of our county, Col. Lindsay, now dead—conduct, which, at first blush, may seem injudicious, but my own experience and observation has impressed me as eminently wise. At a very advanced age, he was taken sick, and being satisfied that it would prove a lingering “sickness unto death,” he sent for his son-in-law, and requested him to go and settle with his overseer and discharge him. He remonstrated with him, saying, “why, father, you always had an overseer when you were in health and was able to ride over your farm yourself and see that its affairs were properly managed, and now when you cannot do so, how can you dispense with your overseer?” “Ah! my son,” said he, “I have lived long enough to learn that an overseer is a very useful auxiliary, when he has somebody to supervise him, but if he has not, he is worse than none; I would rather trust to the servants who do feel some interest in me and my concerns, than to a hired employee, who no longer feels any sense of responsibility and no interest save in his wages, and having as good a time as possible.” And it is equally true with us proprietors of farms, our care and attention are much stimulated by the consciousness that our entire management is periodically to be scanned, criticised and remarked upon. This report, too, is required to be copied by the Secretary of the club and sent to the County Association (of which I will say something presently) for the inspection of members of other clubs of the county.

II. Our next order of business is, for the members *seriatim* to present their views on the subject selected for discussion, which subject is always chosen at the preceding monthly meeting, so that members may have time to consider and reflect upon it, and give their views considerably and advisedly—such questions as the following: “The proper time for sowing clover seed, and should they be covered in any way, and if so how?” or any other of the thousand questions interesting to the practical farmer. By this means, the information and the experience of all the members are thrown into the common stock and made the special property of each individual member.

III. Next, special experiments are assigned to different members, who are to try them, and make report of the result in due time to the club, for example: "to apply lime, mineral and oyster-shells separately to land, grey and red, in different qualities, varying from ten to fifty bushels to the acre, and report the results, on say, turnips, wheat, and the grasses after it.

IV.—After disposing of these subjects, if there is time, it is competent for any member to present any matter on which he may desire the views of the Club, for his instruction and guidance, and it is considered accordingly.

Now, that the proceedings may be properly and profitably conducted, it is important that you have the proper man for your presiding officer—one intelligent and firm, who will hold the members to the subject to be considered, and see to it that each one acts well the part assigned. We are fortunate in having had one for several years, well known throughout the State, for his intimate scientific, as well as practical acquaintance with all the branches of agriculture, Col. T. J. Randolph, who, though at a very advanced age, yet has as much life, energy and buoyancy, and feels as deep an interest in all that concerns the welfare and prosperity, and honor of the old Commonwealth as any young man of twenty-two.

Now can any one doubt, that great good will result to any neighborhood, where such a Club is formed—in the increased interest that will be taken in farming, increased care and attention, and superior management, and the necessary resultant—better crops—and to show how important care, attention, skill and wise management are, and how they tell on products and profits, I will give the result of two crops of tobacco made in this county by two friends of mine. It so happened that each planted 21 acres in the same range of country, on the Eastern slope of our South-western mountains. The one possessed of skill and judgment in the management of the weed, and exercising care, diligence and attention, and always doing the right thing at the right time. From his 21 acres he raised 19,000 pounds and sold at an average of \$17.25 per hundred. The other, equally intelligent on general subjects, but with little special knowledge of the cultivation of tobacco, entrusted its entire culture and management to others. He raised 9,400 pounds and sold at an average of less than nine dollars.

And thus it is in all departments of business. Nothing good or valuable is attained without pains, care, labor and good management. "As we sow so shall we reap."

And is there not everything to animate and encourage the Virginia farmers. Abundance of lands, fertile and productive, or capable of being made so, by proper care and management; adapted to every variety of fruits and other products needed by man or beast; pure and healthy air, and water for transportation; and above all, with a people, who, for intelligence and worth, and all virtues that ennoble our race, have a reputation unsurpassed by any state in the Union.

"Let us, then, be up and doing,
With a heart for any fate,
Still achieving, still pursuing,"

And the best results cannot fail to crown our efforts.

Farmers of Virginia, realize your high and honorable position. You

are the owners, the lords of the soil, to you Virginia belongs; all others depend upon the cultivation of the soil for subsistence. Remember there are some 80,000 proprietors of farms here in this good old State, with some 250 or 300,000 others engaged as our employees on them—exceeding by some five to one the number engaged here in all other pursuits. What can we not do if we set to work with a will? We have too long looked for foreign aid in the way of immigrants, with their capital, to buy portions of our lands and to start our factories. They don't come in sufficient numbers and amounts to make their presence felt. Let us wait for them no longer, but look to our own labor and skill, and judgment, and economy, and by our own strong arms, with the blessing of that Providence who always helps those who help themselves, we will work out our own deliverance and again see our beloved State rise Antæus like from her late prostration with renewed life and vigor.

I omitted to mention in proper order that we have also a county association, composed of the several local clubs, who meet every two months at our county seat. This association is formed for the purpose of securing concert and co-operation, and a kind of union of all the farmers of the county—and then to bring about like concert and co-operation throughout the State, we send delegates to the Farmers' Council, composed of delegates from all parts of the State, holding an annual meeting in Petersburg.

We take no position of antagonism with the Patrons of Husbandry. So far as we understand their objects, we can act in harmony together. We are told they mainly direct their efforts to cheapening the arts of transportation, and the prices of fertilizers, agricultural machinery, charges of middlemen, &c.; in all of which we have a common interest, while we begin at the foundation, and strive to make every particular farmer produce "two blades of grass where now only one grows"—pursuing a plan of action which operates for good upon every individual farmer and farm, so that there is no danger of collision by crossing each others orbits, but one may be considered as supplementing the other.

B. H. MAGRUDER.

[For the Southern Planter and Farmer.]

GOV. SMITH ON COMPLETE MANURES.

Having sent you a copy of my letter to Professor Mallet of the 9th March last, and also of his reply of the 16th of the same month, which appeared in the April number, it was my intention to follow with another, having the same object in view; but the press upon my time, coupled with the fact that I am my own overseer and manager, delayed me, and even now I am so hurried that I cannot do it justice, were I fully competent to do so.

In my letter to Professor Mallet, my aims were to awaken the agricultural public to the importance of acquiring a thorough knowledge of a few elementary principles, absolutely essential to successful farming, and to show, by the highest authority, that this essential knowledge was restricted to a very narrow field of enquiry, entirely within the capacity of any intelligent farmer. In the brief space

of time at my command I shall follow up this purpose, not so much to instruct others, for I am myself a student, as to excite enquiry.

I suppose I may say, that it is *settled* that the whole animal and vegetable world consists of but fourteen materials, to wit: carbon, nitrogen or azote, hydrogen and oxygen, which are called "the organic elements," because they are found in every living thing, animal or vegetable; and phosphorus, sulphur, chlorine, silicium, iron, manganese, calcium, magnesia, sodium and potassium, which are called "the mineral elements," because they belong to the solid crust of the earth.

Now, from these materials comes the wheaten loaf, the staff of life, and the poison which destroys it. They are charmingly termed by the celebrated Ville, *the Alphabet of the Language of Nature.* Public instruction aims to teach all our people the alphabet of our own language, it surely can be hardly less important it should teach us this.

But the weight of authority establishes that *ten* of these fourteen materials are found in sufficient abundance in all soils, so that we have only to provide four of them, to wit: nitrogen, or as it is frequently termed azote, potassa, phosphate of lime, and lime, which, if applied in sufficient quantities, will surely, with thorough preparation of the *land*, and timely seeding, secure an abundant crop. Nitrogen is produced by any decaying substances, whether of an animal or vegetable character. Potassa, the ash element—every fire we make to cook a meal produces it—should be preserved for farm use, and not for the housewife, as she can make her soap with soda, a cheaper article. Phosphate of lime is ordinarily understood to be made of animal bone, broken up fine or ground, and made soluble by sulphuric acid, or by a proper application of unleached ashes, or by composting it with fresh horse dung, or by atmospheric and other agencies; the latter, however, is a slow process. And lime, with which we all feel acquainted, but which we must nevertheless use in compost with intelligent caution—indeed, as a composting element, it should give way to sulphate of lime, (plaster).

Having satisfied ourselves as to the fertilizers we should use, we must next satisfy ourselves as to the quantity we should apply per acre. We must not forget that the last 200 or 300 pounds of fertilizer is the paying portion of the investment. Taxes, interest, labor and seed are the same whether you make ten bushels or forty per acre. Two or three hundred pounds of fertilizer may or may not secure ten or twelve bushels of wheat per acre, (*which does not pay*), and a good set of grass, but a feed of fertilizer fully up to the wants of the growing crop, is certain of a paying return, and a strong and satisfactory set of grass. How much then of the four fertilizers to which I have referred, should be applied per acre. This depends upon the thoroughness of the preparation of the field to be sown, its present fertility, and the time of seeding.

I hold that no field is thoroughly prepared as a seed-bed, unless

broken up at least eight inches deep, harrowed, rolled, re-plowed, re-harrowed, and when the crop is sown, rolled again. The advantages are, that, with such a preparation you will have no winter killing in your crop, nor weeds, nor foreign grasses to embarrass its vigorous growth. Again, the crop must have some weeks for fall growth, that it may meet the winter in vigorous development, with a strong, broad leaf, &c. The broader the leaf the more carbonic acid it draws from the atmosphere in which it abounds, and the greater the certainty of a fine crop at harvest time. These advantages will justify the farmer in materially diminishing the quantity of fertilizer, with which he should otherwise dress his crop. Again, he should know well the existing fertility of his field. Has he been experimenting with a view to inform himself? Should he have ascertained that his field has a plenty of nitrogen, but wants potash, and has lime, yet wants phosphate of lime, he will only purchase the articles in which it is deficient, and so save himself from the use of those with which it is already sufficiently supplied. But should the field be poor, that is, without the food necessary to the production of a paying crop, it must be supplied or the attempt to raise a crop should be abandoned. Ville, after many years of trial and experiment, adopted the following formula, which he denominated "a complete manure," because its proper application to the field invariably produced a remunerative crop. Its composition is as follows :

The complete manure for which No. 1

Acid Phosphate of Lime, 355 lbs.	Cost in France, \$5.40	In U. States, \$6.11
Nitrate of Potash, 177 "	" " 10.47	" " 15.93
Sulphate of Ammonia, 222 "	" " 9.50	" " 11.10
Sulphate of Lime, 312 "	" " .59	" " 1.01
1066	\$25.96	\$34.15

This dose to an acre of land, which, like the worn out land of this part of Virginia produced a most satisfactory crop. See Miss Howard's translation of Ville, page 36 as follows :

The above Complete Fertilizers gave a crop of	56.44 bushels of wheat.
" " without lime,	53.33 " "
" " potash,	40.44 " "
" " phosphate,	34.66 " "
" " azotic matter	18.88 " "
Without any fertilizer,	15.88

While this experiment at Vincennes, France, shows that all the ingredients of the fertilizer were necessary to a full crop, yet it also shows that the land was more deficient in azote or nitrogen.

It will not escape attention that the cost of Ville's Complete Fertilizer is materially more in this country than in France. But the cost can be greatly reduced with us.

One of the most considerable items of expense with us, in the composition of the "complete fertilizer," is the potash, costing nine cents a pound. But the 177 pounds of potash may be substituted by

328 pounds of sulphate of potash, containing 54 per cent. of actual potash, which can be bought in New York at $2\frac{3}{4}$ cents a pound; thus reducing materially the aggregate cost. The sulphate of ammonia may give place to Peruvian guano, or to nitrate of soda, or to dried or ground bone and meat preparation, either of which will supply the requisite azote or nitrogen, as well as the sulphate of ammonia; and I think for a less price. The phosphate for which I have estimated at \$35 a ton, is the South Carolina article known to me to be prime, and said by the great English farmer and chemist, Lawes, to be the best in the world, and which, he says, ought to be furnished to us at \$20 a ton. So that we may expect soon, and, if not otherwise, through the Grange, to get "Ville's Complete Fertilizer" as cheaply at least as it is supplied to the farmers in France.

I have thus thrown together these hasty views and forward them to you by way of reply to your card, with the privilege to dispose of them at your discretion.

In great haste, yours truly,

WM. SMITH.

N. B.—I was honored by Miss Howard, of Georgia, with a copy of her most admirable and intelligible translation of Ville's Celebrated Lectures and Appendix. As far as I can judge, it is infinitely superior to the Boston translation of the same work. I earnestly commend it to the agricultural public.

W. S.

Warrenton, Va., July 17, 1875.

[We understand that Gov. Smith has been experimenting with fertilizers. We hope he will send us the results.—Ed.]

[For the Southern Planter and Farmer.]

FERTILIZERS.

I have had it in my mind for some time to give you an article on fertilizers. My mind was called to the subject by an article in your February number, written by "Keaster," on the bad effects of fertilizers.

From the first introduction of Peruvian guano into this country there have been many advocates for the stimulant theory, as it is called, which supposes that all those articles of manure that make Peruvian guano a basis of preparation are mere stimulants, just as brandy is to the human system. I am greatly astonished that any one who has the least pretension to a knowledge of the teachings of science should for one moment countenance such a wild and erroneous theory—one so well calculated to do injury to the farming interests. Whilst I am an advocate for home production of every thing that can be produced, especially of every atom of manure that can be made or saved, I hold it as an axiom, that all you can do with a farm, by its own production, is to keep it to its then condition of fertility, and in order to this, every atom of material taken from

the soil must be returned in some form; for it is a fact beyond dispute, that every growing crop extracts from the soil an amount of fertilizing material equal to its own weight. How, then, can you make rich, by its own resources, any exhausted highland farm? I will admit, that if you have a large proportion of rich bottom lands, kept so by overflowing, you may enrich your uplands by taking from these and applying to them. But my point is, take the ordinary farms in this Piedmont region, and you cannot enrich them without foreign material.

Then take it for granted you must have help. What shall it be?

I hold that Peruvian guano, as a basis, is the best, and those articles that are nearest to it next best.

But these theorists say, it is a mere stimulant, it will ruin your land. Mr. Editor, I would just as soon say good fat meat would ruin the laborer; one is about as much a stimulant as the other; as one brings strength and nerve to the laborer, so does the other bring strength and vigor to the soil.

To prove this is easy: 1st. What are the elements necessary to compose a rich soil? Silica and silicious sands, alumina, oxide iron, oxide manganese, lime, magnesia, potash, soda, phosphoric acid, sulphuric acid, carbonic acid, chlorine and humus. These, in a greater or less degree compose all fertile soils, and are in various combinations with the primary elements, and in combinations one with another, such as the silicate of lime, magnesia, &c. Now, unless these elements are contained in the soil in some suitable quantity, you need not expect a full yield, however well you may till the ground, or however good the season.

What elements compose Peruvian guano? Analyses made by many of the most distinguished chemists agree as to the ingredients contained in it. These are urate of ammonia, oxalate ammonia, oxalate lime, phosphate ammonia, phosphate magnesia and ammonia, phosphate lime, sulphate potash, sulphate soda, and sal ammoniac. Now compare this with stable or horse manure, and you have almost the same, with the exception of the vegetable matter mixed with it.

Here lies the difficulty, Mr. Editor. These would-be theorists sow down guano on the land, then cultivate three or four crops without rest, until all the vegetable matter in the soil is exhausted (without this no soil can or will produce), and then say the guano exhausted it. But, if the better plan of rest, with clover, were pursued, there would be an entirely different conclusion.

My argument is in such a condensed form that the casual reader will not see its real import.

I might add, that my experience with fertilizers fully confirms the view I have taken, having made rich a small farm by following this reasoning.

I am now making some experiments with a sample of Piedmont guano presented me by my friend Col. Wait, of Virginia, which I will report to you.

L. B. S.

Winston's, N. C.

[For the Southern Planter and Farmer.]

A LETTER FROM HALIFAX.

Your readers wish something original, and something fresh; and I, like a certain gentleman I have heard of, am afraid there is nothing original about me excepting *original sin*. "Does Farming Pay?" has long been discussed; "The Labor Question" long since decided, and we have written appeal after appeal to our Legislature to give us relief upon "The Dog Question," and to secure us upon the "Fence Law" question. As to the dog question, the people must take the law in their own hands, and raise sheep whether or no; and as to the fence-law question, it is simply impossible for that ever to be changed in this county. The people, white and colored, have no fences, and it would take at least a fourth of what little wood land they have to fence in—besides, they haven't the means or time to spare from their crops. The majority are satisfied of the fairness and the benefit arising from the present law, but under the pressure of the present hard times it will be impossible to change it. It is absurd that Virginia, struggling under her embarrassments and trying to pay off her indebtedness, cannot have the benefit of a tax that would accrue from taxing the numberless horde of dogs that roam from place to place seeking what they may devour—infesting every log-cabin, every field, every street, every store, house, sheepfold, or brick yard—doing damage wherever they go, besides preventing a revenue to the State by keeping down the sheep interest. But aint the Grangers going to arrange all these matters for our farmers? We look to the Grangers. We have long *begged* for our rights—let us now in *solid column demand* them! "In union there is strength!" This is the colored man's secret. Let them agree on any measure, and they are *one* for that measure. Let us take a lesson. Let us but *unite*, let us resolve to put our hands to the plow, to have more confidence in each other, and to make our old mother State the "State of States" she used to be.

Some writer complains of "The Loneliness of American Farm Life." We work about thirty hands in the brick yards of the Messrs. Cosby, Owen & Co., at South Boston and Wolf Trap depots, and I assure you before Saturday comes I often wish I could know something of the loneliness of farm life. We long to get out of the rabble, the noisy, business crowd, and to feel something of the quiet serenity, the almost perfect peace, that dwells under the roof of that little farm house that is by the wayside. Even my horse, as he turns in at the gate, seems to know that in there is quiet, and that in there the jarring, and bustling, and jolting discord ceases.

Of course our farmers, if they have time, should visit each other more, and should be more sociable; but how can any one be lonesome on a farm? Why, there we can have the sweet flowers and the glorious fields of grain for our companions, if we have been industrious enough to deserve them; and then we have the wild flowers, the woods, the fields, the brooks, &c., free to us, ramble where we may. How can we complain? Let us only make our homes more attractive; let us only interest ourselves in them, and we shall not have to complain of loneliness.

What more enticing or beneficial to health than to rise with the lark, draw in the fresh, pure air of heaven, see the glorious sun rise, our fields clothed in fresh beauty, administer to the wants of our animals and receive their almost human gratitude, take a walk amongst our garden of promising vegetables, and then to be called to a breakfast of fried chicken, ham, eggs, biscuit, and ice-cool butter and milk, all of our own raising and industry! Who could refuse to relish such a breakfast, especially if presided over by a little girl with rosy cheeks and cherry-red lips? And who, after partaking of such, could refuse to go to his work in the growing fields with ready hands and a thankful, joyful heart? He can work in the cool of the day, and with his newspaper rest in the shade. And in the fall, when rest is needed and deserved, when old winter is coming on, our crops, &c., all secured, and everything in its place, and a place for everything, then we can take our families down to our old mother State Fair, procure our winter supplies, &c. But a farmer may enjoy numberless blessings which I cannot enumerate here. May the time soon be when a farmer knows how to appreciate his many blessings.

Pardon me for this long, disconnected, disjointed and tedious harangue, written amid many interruptions, and I will try and do better next time.

H. W. COSBY.

[For the Southern Planter and Farmer.]

PEA GATHERING.

I observe that some of your readers wish to know the cheapest mode of gathering peas. I will give you my plan, but don't say it is the best that can be devised, but it is one that pays. Your correspondent objects to the pea on the ground that it does not mature its seed simultaneously, which is well founded, provided they could only be gathered by hand, but such is not the case. Gathering peas by hand for feeding purposes was necessarily abandoned when the institution of slavery was abolished. We can afford to gather in small quantities by hand for planting, but not for feeding purposes. A cheaper way of gathering for seed is to pull or cut vines and all, and thrash or tramp out, which will leave a pretty fair article for forage. Gathering by hand would make the pea one of the most expensive crops we grow.

If your correspondent will plant corn and peas as suggested in a previous article, and feed off peas with hogs, beef cattle, (in fact all kinds of stock may run in pea fields and get fat or in good condition for the winter,) he will find that his farm will not require more than two-thirds the amount of corn that is usually consumed. All practical farmers know that poor animals when fed on corn at the market price in the South will eat their heads off (or so nearly so that there will be little left to balance expense of raising) by the time it is prepared for the tub; and this is the great bug bear that scares many farmers off the road that leads to prosperity and independence. If our people could be induced to plant and sow peas in the right way and at the proper time, a sufficient amount of pork, beef and butter could be produced to supply our wants at a nominal cost. My pork cost me 3 cents per pound in 1873, and not exceeding $3\frac{1}{4}$ cents in 1874, (these figures may appear very small to some but they are in excess, if anything, of the real amount,) which could only have been done in this country by pursuing the plan named above.

Now, farmers, which is it better for us to produce, our pork at a trifling cost or give liens on our crops, and pay from 15 to 25 cents per pound for bacon and all other supplies, in the same proportions.

I, for one, have resolved to try to live at home as much as possible, let others do as they may; still it would be very gratifying to me to see my brother farmers enjoying the peace, prosperity and independence consequent upon a full corn-crib, smoke-house, flour-house, barn, &c., &c.

J.

Unionville, S. C.

[For the Southern Planter and Farmer.]

“COTTON IS KING.”

Cotton was proclaimed king about the year 1854, I think, though really it reigned virtually farther back. That cotton is king, and an exceedingly fickle and capricious monarch, I am ready to concede, and of his potency, his tyranny, no one need doubt. He fattens and pampers thousands of his subjects, whilst he oppresses and tyrannizes over many other more deserving and fully as loyal. This potentate enriches those mainly who idolize him most, be they noble or ignoble, honest or thieves. We see the railroad magnates in solemn conclave over their sovereign's business, and we see the dirty drayman all eager to serve his master—both fatten. The warehouse men, they begin to smile about the first of September when their master expects to pay them his annual visit, and they too begin to think of oysters and canvass-backs. The fire insurance man sits in his dusty office and smiles at the coming harvest, and contemplates immediate deliverance from cobwebs and dust, and that long torpid state in which, by necessity, he has lain. The importer of bagging and ties, (a grand monopoly), he too prepares to sing peans to this monarch of the civilized world. The mercantile marine is now ready

to crowd their white wings into every one of his majestic ports, and the fat old ship-owner, as he sits in his old oaken chair in Liverpool or Boston, shakes his ponderous sides as he contemplates the good time ahead. The factor, bless the factor, I would not forget him—he now begins to put on new life, and begins to organize his forces, his draymen, his storage-men, his weigh-men, his marking-men, his samplers, his menders, his salesmen, his book keepers, errand boys and porters. He rubs his hands in very glee at the harvest of drayage, storage, hand-hire, weighing, insurance, city tax, *pickage*, commissions, &c., &c., and lays out plans for a fine, new residence to be built and furnished, and the *turn out* for the young ladies—it all comes looming up before him in beautiful expectation, and he raises hosannahs to the king and shouts, great is cotton the king. The spinners, dear souls, they are in great perplexity. They wish to shout to the great chorus, but these “strikes,” and then there is general stagnation, but some how, they always manage to make good dividends.

All these, and thousands not thought of, live, thrive, fatten upon this great staple (to drop the allegory) cotton, and only he who produces it, he that toils night and day the year round to bring forth this vast treasure, reaps nothing but loss.

The question is, why is this?

It can be answered in a few words.

Too much cotton and too little corn.

Too much land and too little manure.

Too shallow breaking, and too deep culture.

The first step to prosperity is to get out of debt, and that cannot be done unless we stop this everlasting peace destroying process of credit. When we make plenty of corn and meat at home, (and we can do it easily) then we get clear of debt, and when we get out of debt, this grand army of “middle-men” will have to look for other pastures.

Virginia will soon be ranked a cotton State, but let me here warn that people never to permit cotton to get such a hold on them as upon us, to cause them to locate their cribs and smokehouses in the West instead of on their own premises. Let cotton (yes, and tobacco, too,) be the *dessert*—it is not the staff of life—corn, wheat, oats, peas, potatoes, and all things for man and beast, are the *ham and cabbage* (that good old Virginia dish), and roast-beef and turkey. Cotton is ice-cream, syllabub and floating island. Yet what would the millions do without it? It suppresses mobs in old England and New England. It gives bread to thousands who could get it by nothing else. It creates a circulating medium for the civilized world. It brings into play more commercial talent than any other article of production known to man. It has a mighty influence in the destiny of nations—in fact, King Cotton is the most powerful monarch that has ever reigned in this earth, and we Southern planters have it in our power to bring him at our feet and monarch him and all his votaries by a judicious and patient course, and that in two years from date.

I find from sad experience that a large area of cotton and many laborers will not pay. I am now paying off a large debt accumulated for several consecutive years by cultivating a thousand acres annually, with less than one fourth of that quantity of land. One may naturally ask, if one plow makes five hundred dollars clear money a year, why will not twenty plows make ten thousand? In the first place, no one man can give that attention to fifty hands that is absolutely necessary to make it a success; and to have overseers is only to add to your losses and aggravations. I have tried it effectually. And then the crop is too precarious to risk such large expenditure. The labor, too, is too vacillating to hazard so great an outlay.

A neighbor of mine has at this time six hundred acres in cotton, and it is fine, and he expects two hundred and seventy-five bales; he is an energetic, intelligent gentleman, has a good manager, and yet he tells me, even at last year's prices, and realizing the crop as stated above, he will lose money.

Among the thoughtful and intelligent planters, this seems to be the course hereafter: Rent all they can to such tenants as can support themselves—making it binding on them to manure, keep up fences and rotate—and to hire a few of the best laborers for a small farm, and make that rich. Then, by making every year enough corn to last eighteen months, hogs, cattle, and sheep can be produced, thereby rendering ourselves independent of the West.

As to the cultivation of cotton, every man has his own theory. My *experience* tells me to break up my land deep, prepare it well, manure heavily, either in the drill or broadcast, keep it clear of grass, and the result will be satisfactory. Land that will produce ten bushels of corn to the acre will bear cotton rows as close as three feet three inches—poorer the land the closer the bed, especially with the improved seed. "Cotton loves company," and the seed I use, of my own improving, requires not over three feet apart in ordinary land; and in such land I have not failed to make a bale to a bale and a half to the acre for the last five years. My land is stiff, consequently I bar it, chop it out, put the dirt back in a day or two to protect the young plant, and after that I use the sweeps; but if you let the grass get the start of you the sweep must be dispensed with and the "buzzard" taken up. I keep the sweep going until I begin to pick. I think it best—others differ. Cotton should always follow corn or other grain. In October and November a good picker, man or woman, ought to pick on an average two hundred pounds. I have two old women who have picked as high as five hundred pounds each per day. One of them can do it now. Crops can be and ought to be gathered and ginned up by the middle of December. Cotton picked after that is hardly worth the picking. Good gins add to the value of the staple, and a good intelligent ginner is indispensable. Tallow packed in the gudgeons prevents heating—oil should never be used except a little when the gin is first

started. Matches should never be allowed in the field when picking. A good, strong, glass lantern about the gin-house, *in careful hands*, is also indispensable. "Whang" leather for strings, and a punch must always be at hand—also a hatchet. Nails or bits of iron should never be allowed about the cotton or gin-house. A nail or stone passing through the saws will set the lint-room on fire. These little directions may be of service to some new beginners. Old cotton planters are set in their ways, and allow no innovations on former usages—to such I do not address myself.

You have my views (at your request) Mr. Editor, hastily thrown together, and if they are worth anything, you and the public are welcome to them. I will say in conclusion, that cotton, though the most fascinating of all products, because of its portability, and its adaptability to mankind, yet it is a dangerous article financially and otherwise, unless sensibly and judiciously handled.

Allington, Burke county, Ga.

S. WYATT.

[For the Southern Planter and Farmer.]

WASTE.

In mechanical parlance waste is the tangled and useless residue of thread from the spindles in cotton mills, used to clean and wipe the black and gummy oil from machinery, until recently this material, used by the handful, when it became saturated with oil and filth, was thrown away. One of our leading railroad managers conceived the idea of saving it by washing, and thus from handfuls of waste, accomplished a saving of over eight thousand dollars per year for the company.

No occupation is more prodigal of opportunities for wastefulness than that of farming, and no one needs more to watch and save than the farmer, in every possible and conceivable way, and especially in the important item of manure supply from which to draw nourishment for his crops.

It has been stated by Boussingault, and endorsed by Liebig, that the liquid and solid excrement of one man, will yield in a year over sixteen and a quarter pounds of nitrogen, or an amount equal to that contained in 800 pounds of wheat, more than would be necessarily added to that obtainable from the atmosphere to thoroughly fertilize an acre of ground.

It has been established after repeated experiments, by equally eminent authority as cited above, that humus does not, as a fertilizer, furnish plant life with carbon by being absorbed at once, or to any appreciable extent by vegetation, but by presenting a slow and lasting source of carbonic acid, which is absorbed by the roots, principally at a time when the young plant destitute of leaves, gets the least sustenance from the atmosphere; if this can be accomplished or followed by the volatilization of ammonia, we have the main sources of the life of most plants. Notwithstanding, as is practiced by almost

all farmers, we increase the humus in our lands by the application of straw, pine-tags, wood trash, and other vegetable and carbonaceous matters, all-be-it that they are in a measure combined with some animal excrement. Our lands with all the literary efforts of good theoretical and practical farmers in their behalf in writing up manures, are in the main, fast: all, to a greater or less extent losing those of their constituents that go to the production of the seeds, roots, and leaves of the plants raised upon them, gathered from them, and taken away to sustain our communities of non-producers, who consume and never return any compensating nourishment for a repetition of the production of the soil. In short, with our present system of city sewage, the city is constantly sustained at the expense of the country.

This has all been talked over, written about, and lectured upon many times, and too much, before, by farmers and others.

It is suggested here, that perhaps farmers could do more by example to lecture city consumers into saving for them, if they would first investigate the probability of a beam in their own optic, before they scan too closely the keen business eye of their city neighbor.

Probably, not upon one farm in a hundred is there any notice taken of the source of manure supply, in a family of four persons, perhaps upon one farm in fifty, once in a long time. The edifice set over a cess-pool near the house, and in close contiguity to the well, is tipped over upon its side, upon a day selected when the wind is blowing from the house, all hands with noses stuffed with cotton are engaged in a long dreaded and a most disgusting job of cleaning out a mass of putridity, to be hauled off, and dumped in some gully or put on some abandoned field, or used "because manure was scarce that spring and it wanted cleaning out any how." Or worse, the edifice is removed, the cess-pool filled up, another one dug near by, and the building reared over it; the putrid mass just covered to be left to continue to sweep through the soil, and in some cases to contaminate even unto the dissemination of disease and death the very spring from which the family daily drink.

So long as farmers indulge in this custom at home, it will be in vain that any reform shall be attempted in the sewage system of our cities.

If the farmers will reform their own system of sewage, and let the metropolitan money hunters see that there is a cash value to their waste, be it ever so little, and there will not be a want long for some keen eyed financier to sound the tocsin of "There's millions in it!" and "presto!" we shall have plenty of helpers, over head and ears in cheap manure, that will feed our hungry lands, and take the place of the exorbitant priced imported and manufactured compounds of (in many cases) questionable value or efficacy.

The excrement of one individual adult, solid and liquid, will average from actual experiments, over a pound and a quarter per day, for a family of four persons, over five pounds, a ton a year; this in

the state that it is voided is largely composed of water, but water holding in solution, so to speak, the very essence of plant life; could all of this be saved, there would be but an inappreciable amount of waste, but what would be appropriated by the soil and vegetation to the benefit of the farmer.

The smell is offensive! and to the taste of the delicate and fastidious, the idea of using it is repugnant, granted in its present form; yes. What shall we do with it? bury it? exactly, the idea is suggestive, bury it under the dry earth mould, that is in humus; this has been done for ages, and is the customary way of disposing of all decaying and putrid substances.

Therefore, if to dispose of this ton of excrement by burying it, we reduce the burying process to a daily system, we have the very reform for the farmer that it is the object of this paper to advocate; to be definite, the earth closet on the farm is the desideratum, and should be the rule, and not the exception. Fence corners, behind bushes, out of the way waste places inaccessible for cultivation, should be abolished as places of deposits for valuable compounds.

Upon every farm a proper and convenient place should be provided, and every member of every family, young, old, master and hireling, should be influenced, or compelled to use it regularly as a measure of health, always as a means of saving, and to respect it as a comfort and convenience, not only to the individual, but to the community around them.

It has been suggested that an idea that earth closets are a patented and expensive luxury, prevents their general use, quite the contrary. A system of daily burial of the excrement of a farmer's family can be inaugurated with no outlay of money, and but little expense of labor or time.

The usual cheap outhouse is necessary, with but little difference in manner of construction, viz: the building should be raised about sixteen or twenty inches, with two steps from the ground, to mount into it, the seat should be just high enough to admit of placing an ordinary barrel under it, it should be made wider than ordinary, to allow the barrel to be pushed well forward so that the opening may be over the centre of the mouth of it, in order that it may catch all the liquid excrement, and not allow any drip on the outside to create unpleasant smell. A box or tub, with a scoop or hand shovel should be provided, and placed at hand, (on the seat at the side, or on the floor behind the door are convenient places,) this should be kept supplied with rotten wood, dry mould or humus.

All persons using the privy should be instructed to throw a scoop full or two of the contents of the box in the barrel, both before and after occupying the seat; before, because the previous occupant may have been neglectful, and too, to prepare a dry surface to receive the fœces, and after to cover them and absorb all moisture, and prevent any unpleasant effluvia from rising, &c., &c.

When the barrels are filled, they can be removed from the back of

the house where a door or opening should have been left for the purpose, and their contents emptied in a bin or in a pile under shelter, if there is any unpleasant smell or moisture perceptible upon emptying the barrels, dry earth should be thrown on to cover and absorb it, as there should be afterward, if moisture appears upon the surface of the pile.

It will not be long before the system will work smoothly, especially if one person takes interest sufficient to devote half an hour per week to see that a supply of deodorizing material is kept on hand, and there will be no difficulty in keeping up the practice. The results at the expiration of the year, will be for every four persons, at least two tons of as good, if not superior manure, to the many high flavored, loudly lauded compounds that are sold from \$30 to \$70 per ton.

It may seem difficult to keep up a supply of dry deodorizing material during winter and prolonged wet weather.

It would not take a half day upon most farms during the dry days of summer, to collect and haul from the log-beds in the woods, fifteen or twenty barrels of fine, dry, rotten oak wood, nor would it take long to burn a coal-pit; besides the charcoal would more than pay the expense. The calcined clay from the top of the kiln, and the coal dust from the bottom, or the rotten oak from the wood, stored, and kept dry, are all excellent for the purpose, as disinfectants and absorbents, but special labor and expense seemed to be involved in obtaining a supply of either, to avoid which is most desirable in advocating a trial of any new system.

If in obtaining the usual supply wood for the families a constant practice is cultivated of picking up the decaying branches, cutting up and saving old logs and laps, and hauling the wood up, with as much of the adherent decaying matter as is possible, the trash pile from the wood if it is sheltered and kept dry (which will be a benefit to it) will furnish an abundant supply of the deodorizer needed.

A simple slatted screen (as for sifting sand) provided, and five minutes a day used in screening the fine humus from the coarse chips and trash, the supply will be constantly augmented, and the expense and trouble not noticed, except to be repaid by the improved condition and appearance of the wood land, that will be gratifying at least to the cattle, that will find good accessible browsing in place of jungles of brush, and tangles of logs and laps.

In the use of the earth closet the application of the deodorizer should be liberal, and in quantity, so that neither to the sense of touch or smell, can any trace of the fœces be perceived. If in trying the experiment you have produced such an inoffensive mass of material, that you doubt its efficacy as a manure, add but a moiety of good unleached ashes, or lime to it, and you will find that your nose knows better, apply it to your growing plants they will know what to do with it.

Sulphate of lime (plaster) may be used with the greatest advan-

tage, where money is at hand to buy deodorizers for the earth closet, as is shown by the practice of scattering it in our stables to prevent the waste of ammonia. The ammonia enters into combination "with the sulphuric acid, and the carbonic acid with the lime, forming compounds that are not volatile, and hence destitute of all smell, the ammonia being retained in a condition serviceable as manure."

To encourage the trial of this system, that its savings may be added to those from the cow-yard and horse-stable, let the *fact* be considered, that the nitrogen contained in 100 parts of human urine, is equal to 1300 parts of the fresh dung of the horse, or 600 parts of those of the cow.

S. D. HOWARD.

Shady Spring Farm.

[For the Southern Planter and Farmer.]

CURING BRIGHT TOBACCO.

Upon second consideration I have concluded to remodel my communication, published in the *Planter and Farmer* on curing tobacco, in some minor matters, together with some additional remarks.

To cure *yellow* tobacco you must use charcoal for the leaf; the stalk and stem may be cured with seasoned wood. The barns should be made as close as possible; and many farmers have cabin roofs to their barns, covered with boards which permits the heat to escape much better than shingle roofs. When you cut your tobacco put 6 or 8 plants on a stick, (according to size,) and place the sticks 8 or 10 inches apart on the tier-poles. If your tobacco ripens yellow, commence the heat by a thermometer at 90 degrees, and keep it up till the tobacco is yellow enough to commence drying the leaf, then raise to 100 degrees, and keep it up for three hours; then raise to 110 degrees, and hold on to this heat till you see that the tobacco is *well sapped*, and the tails begin to turn and get a little dry at the ends, (*for you cannot cure yellow tobacco until you get the sap out of the leaf*;) then raise to 120 degrees and keep it up for three hours; then to 130 degrees for the same length of time; and then up to 140 degrees, which must be continued till the leaf is cured. You may then take out your thermometer and make your fire hot enough to cure the stalk and stem thoroughly. A wet season will cause a redundancy of sap in the leaf, which will exercise the curer's patience and judgment in yellowing and drying the leaf. Early curing is the most successful whilst the weather is warm. I succeeded admirably on one occasion by letting the tobacco hang in the barn till as yellow as necessary, and then started the heat at 120 degrees with open door. If your tobacco ripens green, commence at 80 degrees and keep it at that point for half day; then at 90, and proceed as above. Be careful *not to let the tobacco become too yellow*; the leaves highest up toward the butt of the stalk must be our guide, as these become

too yellow first ; and when the leaves that grow about the middle of the stalk become yellowish, (not *yellow*,) then raise to 110 degrees.

For a barn, 18 or 20 feet square, have three rows of fires, and three fires in a row. As soon as the tobacco comes in order, crowd it together as close as you can, and let it remain till the weather becomes cool, by which time the color will be *fixed*; for if you let it get in high order soon after being cured the leaf will turn red. If a damp spell occurs, build small fires to keep the leaf dry.

It is the custom of some farmers to keep the door shut whilst yellowing and drying the leaf, whilst others let their doors remain open, which seems to be the most rational plan, as the tobacco will not be subject to so severe a sweat, and the leaf will dry more speedily in consequence of the admission of air—for I presume that every farmer has observed that the tobacco which hangs about the door is the first to dry up, and of a good color. If your tobacco gets into a sweat with closed doors, open the door and let the fires go down ; and after the sweat subsides, then go ahead.

Suspend the thermometer in the centre of the barn, with the top of the thermometer on a level with the points of the leaves below. A convenient mode of suspending it is to get a hickory switch about three feet long and make a loop at the little end through which to run a tobacco stick, and hang it on the tier-poles between the sticks of tobacco, leaving a piece of limb on the lower end like a hook on which to hang the thermometer ; and thus you can conveniently reach it to examine the degree of heat. For negroes, a white thread should be tied over the figures indicating the heat, and moved upwards as you increase the heat.

In by-gone days, I primed my tobacco, but were I farming now I would not prime a plant, for it is reasonable to suppose that by not priming, you make more and finer tobacco, and the suckers are few and stunted, except at the three top leaves ; and furthermore, it is natural to conclude that unprimed tobacco is less liable to fire than the primed, the sap being distributed among a greater number of leaves.

In fine, the seasons and state of tobacco has an important influence on successful farming, and experience must be our guide.

WM. R. HATCHETT.

Charlotte Co., Va.

N. B.—I cannot but conclude that the discussion (in the *Southern Planter and Farmer*,) in which I bore a part with others, relative to the proper mode of ditching out bottom lands, will be of lasting benefit to the farmers who will adopt the plan of cutting their ditches through the *lower* portions of land, which accords with nature's system of hydraulics, and is the only way to reclaim our lands that are now worthless for cultivation

H.

[Mr. H. has for more than half a century been a successful raiser and curer of bright tobacco. We know him to be *authority* on this subject.—ED.]

[For the Southern Planter and Farmer.]

A LETTER FROM GEN. SMITH.

[We are indebted to the courtesy of Dr. D. S. Watson for the following private letter from Gen. Smith. We are sure it will be read with interest by our readers. It is characteristic of every thing he writes—practical and sensible.—ED.]

My Dear Doctor,—Your favor received. * * * * My farm consists of 225 acres, immediately adjoining our county seat, and is assessed at \$100 per acre for taxation. It is indebted for this high assessment to its location and improvements in great part. I made this year, however, about 700 bushels of wheat, about 25 bushels per acre, (one half of which I lost by lightning), about 1,600 bushels of oats, or 40 bushels per acre; about 350 barrels of corn, or 10 barrels per acre; about 80 tons of hay; 500 bushels of rata bagas, &c., &c. The offal of these various crops is carefully secured and fed to about 25 head of cattle, 12 to 15 head of horses, as is used to bed them according to its character, wheat-straw being used for the latter purpose. My corn-fodder is generally cut up by machinery and fed in that way. I rarely fail to buy wheat-straw, when I can pick it up cheap, although it is hardly worth hauling—writers informing us that straw is only worth \$3 a ton for purposes of manure. Hay is not usually consumed on the farm, but sold when it will command 75 cents per hundred; when it will not bring that price at home, I propose to hold it, as it will keep, or convert it into beef, perhaps the proper disposition for it at all times. I will now proceed to answer your enquiries.

The hay crop to be properly saved must be rapidly handled. On my little farm I cannot get along with less than two mowers. I start them about 8 A. M., when the night dews are under process of rapid evaporation. I follow immediately with the tedder, which easily scatters the grass cut by my two mowers. It is a light and wonderfully efficient machine, easily operated by any old woman and a mule, and can do more and better work than twenty men with pitch-forks. It is a revolving cylinder, with projecting claws, which picks up and drops the grass so as to let it fall by its own gravity, after the momentum occasioned by the revolution of the machine is exhausted—thus reaching the ground “in most admired disorder,” and curing perfectly. Mine cost in Alexandria, \$97.50, and would pay for itself twice over in a single crop like yours. These machines work as rapidly as possible, until the hands quit for dinner at noon. When work is resumed at one to half after one o’clock, the balance of the day is devoted to securing as hay, the grass that has been cut in the forenoon. To this end the tedder gives place to the steel spring rake, and with the mule and hand that worked the tedder in the morning, gathers the scattered hay into windrow. Of course, you will commence this work where the mowers began; in the meantime the men who mowed in the morning are *busily* engaged in preparing for the hay to be stacked or housed in the afternoon. At 3

P. M., the rake having got sufficiently ahead, the mowers who have prepared for the reception of the hay, take their teams, refreshed by three hours rest, and hitch each to a wagon, with proper hay frames, to which another must be added, as three are requisite to do the afternoon's work, and perhaps a fourth, if you have far to haul your hay. The wagons ready, will have to move where the mowers began, where they should find four active men with pitch-forks ready to load them with dispatch. As the horses, in loading and unloading, have much leisure, they must be put to a trot when their wagons are empty. As the loaders, from various causes, will have no wagons to load at times, they should be *required* to cock hay during such intervals, leaving such cocks to be hauled last, as they are in a condition to stand a shower without material damage. Hay not housed by 5 P. M., when the dew begins to fall, should be thrown loosely into the hay house, and so to remain until the next day, when the mowers, between 1 and 3 P. M., would stow or pack it away, giving it, being the last cut hay, 24 hours of ventilation without exposure. I have another important facility in unloading and housing or stacking hay, in the hay-fork, its pulleys and tackle. With it two men, a boy and a horse, you can unload and pack away a load of hay in five minutes. Cost about \$25. Of course you have it. In this way the succulence and color of the grass is to a great extent preserved. Clover-hay, now almost valueless in consequence of the manner in which it is usually cured, its foliage crumbling in the handling, assumes its rightful position in the list of animal forage, its leaves being no longer crisp, but tough and flexible as the timothy leaf; and having, by chemical analysis, as writers inform us, 19 per cent. of fattening and growing matter, is greatly superior to timothy, which has but 10 per cent. I do not use salt or lime in curing my hay. I formerly did so, (that is salt), but not seeing its advantage have ceased to use it. I will add that hay that is to be stacked, but is *not* before 6 o'clock P. M., had better be left over in good-sized, well put up cocks, to commence the stacking with the next morning.

I purchased my tedder of Herbert Bryant of Alexandria. It was made by Ames & Co., Boston. Any agricultural store in Richmond can supply or procure you one. There is another but I know nothing about it.

Undoubtedly, hay should be housed. Such houses as would answer the purpose would pay for themselves in a single crop. But all houses should be built so as to answer more than one purpose. My plan is to have a house in each of my fields, about 35 acres each, to hold about 70 tons of hay—the hay of the field. I have already built one house in or about the centre of the field, 60 feet long, 20 feet wide, and 20 feet high, with choice white oak posts, with plates, stays and rafters, the whole enclosed and covered with inch plank sawed to the proper length. When filled with hay, and you should conclude to sell it, in a single day you can work out hay enough, to work afterwards with press and hand under cover, devoting after-

wards your rainy days to bailing, &c.; or when empty using it for the shelter of stock; or if filled with hay, the price of which would not justify its shipment, then by feeding it out, *from the inside*, to steers purchased for the purpose, haltered in stalls, constructed all around the building, converting it, with the aid of meal, into No. 1 beef, leaving an immense residuum of invaluable manure to replace what the beef will have carried off, &c. Such a house has cost me here about \$120 in money besides my own labor. It is usual to have small hay houses in the hay fields north of the Potomac, but for the considerations I have stated, I greatly prefer those of the size, somewhat modified, as I have suggested.

To sum up, you will want two mowers and a tedder driver from morning until noon. With this force in perfect order, you ought to cut down and scatter 12 tons, but horse and man must move lively. In the afternoon the real struggle begins. At one o'clock the hay rake must be started and run until night. At three o'clock three wagons must be started, requiring four loaders, and at the same time must be started the hay-fork, requiring two of the most efficient men to be had, a smart boy and a strong horse, to unload the wagon and pack away the hay—11 hands in all.

WM. SMITH.

N. B.—Mrs. S. not only recollects you as so long and kindly practicing on me during my sickness at Gen. Anderson's, but sends her cordial regard. If you will visit us we will visit Mr. Benton, who got the premium at the State Fair for the best forty-acre field of corn—between 17 and 18 barrels per acre. I want to see and understand the whole process, and supply myself with his seed.

Fauquier Co., Va.

W. S.

[For the Southern Planter and Farmer.]

A REMEDY FOR MANY OF THE FARMERS' ILLS.

In consequence of the poverty and anxiety of our people to rally from their misfortunes, they are disposed to be unsteady in their purposes, in engaging in unsuitable enterprises and avoiding agricultural and mechanical pursuits; and you will render good service to your readers by impressing upon them the necessity of perseverance in any regular pursuit—and especially urging the farmers to stick close to their business and raising a variety of crops that do not materially interfere with each other.

This variety of crops will give steady employment to the laborers, who should be encouraged to be constant and contented with their homes; and their families to be made comfortable and *required* to give a helping hand at all times. It is to the mutual interest of owner and employee to do so, to keep up proper discipline, and to see that no idlers or loiterers are allowed to pass about the farm during work hours.

Whilst we should aim to diversify crops, we should be careful not

to undertake unsuitable crops, or stock breeding, never engaging in anything simply because others are doing so, who may be very differently situated. Some should raise tobacco, whilst his next neighbor probably should not. Wheat is a crop for rotation after oats, and oats after corn, and thus made more necessary than desirable as a paying crop, with Western markets opened upon us. Clover is an improver, and will mix with orchard grass, or may be sown alone; and the land, soon to be broken up, improved, cultivated a year or two in other crops, and back to clover again. Timothy, as a meadow grass on *suitable* lands, is valuable for hay, but is an exhauster of land and is too late ripening to mix with clover for hay to an advantage. Roots of the turnip species are of great value in winter for stock when green food is not to be had.

Cattle, sheep and swine of careful selections, from breeds adapted to the locality, and well cared for according to the season, will be valuable to those so situated as to rear them advantageously, affording an income to the farmer without detriment to the land; and often their gleanings of the fields is of decided advantage, especially with sheep; still farmers had better destroy their flocks than to graze into the ground young grasses. When hay is the crop, what stock they may advantageously use six months of the year, they may have no place for in pasture months, and should sell off in spring in same form. There is a rapidly increasing interest springing up in sheep, and as far as farmers are situated to raise them, let them do so, and let there be fifty where there is one, and let our people encourage the use of mutton in lieu of Western bacon. Each farmer has a share of waste, gleanings, garbage, etc., to support his shoats; then the grass and harvest field till corn is in the roasting-ear stage, when it is cheap food to feed it whilst the stalks and fodder are green enough to be eaten, the latest corn to be used last; then an abundance till the year old hogs and upwards are fat towards December; and with *judicious* curing the bacon will justify an average of ten cents or more for pork, and it will be sweet home-made meat, instead of probably swill-fed hogs of Western distilleries, slaughter-pens, and other filthy deposits of food for swine.

The breeding of horses is of great importance and much is to be considered—to what extent and the kind that should be bred. Instead of sending our money to the West for pampered horses and mules, let each person attempt to raise their own animals selecting females with a view to use and breeding. The colts are raised with but little perceptible cost, and from two and a half years old, by careful use, they may pay for their food; and then in a year or more they are probably wanted at from \$100 to \$150.

All this requires thought and attention, and the eggs being well divided in a number of baskets, their results come in like mixed crops at a timely hour peculiar to them, and thus through the year, there is a fresh and varied occupation for each one on the farm.

Stock can be increased rapidly, and if good kinds, the whole sur-

roundings improved; and there is no section above tidewater in which this line of policy cannot be well followed, even in the tide-water districts.

Whilst a farmer may wish to change off certain animals, he may wish to have others in their stead to suit the season and crops, which may be easily effected by public sale-days or private treaty; and it is but a matter of time that we of Virginia must be a mixed husbandry people, grazing more and stirring the soil less frequent, and then to a *purpose* and with a will, and to return to it to grass, and in an improved condition.

Now, Mr. Editor, let your articles encourage this line of policy, and let not your readers catch at each bubble or reality that present themselves, but select that which seems adapted for "the situation" in which each one finds himself, and let us be *employed*, that we may the better avoid opportunities to make idle outlays and waste time in trying to find a mode to avoid paying our just debts, and thus educate our minds to find an excuse and a way, we, and those who are to follow us, can *dodge* the adjusted debt of our State, and thus live more by their wits than by honest labors in whatever branch our lots in life may be cast.

S. W. F.

[Our worthy correspondent who will be readily recognized by his *initials*, has struck the key-note of success for our farmers. A farmer should carefully study the character of his soil—the kind of crops best suited to it, the market for the same, the labor available for its cultivation—indeed everything affecting his success in any way, and then having carefully determined upon a line of policy or mode of cultivation, adhere to it until he has given it a fair trial and honestly tested its results.—Ed.]

[For the Southern Planter and Farmer.]

FODDER PULLING.

The March number of the *Southern Planter and Farmer* contains a communication from Dr. Pollard, in which he still contends that pulling fodder injures corn, and that the fact has been sufficiently established by experiments made and reported at different times, by men of known ability, to decide by test such questions. In a former article he gave the tests of Mr. Seaborne and Mr. Harrison, which I pronounce unsatisfactory and unreliable, for the reason that the corn to be compared was taken from a given number of rows in the field and weighed, to ascertain which row, this or that, produced the most corn by weight. If I desired to ascertain what fertilizer was best adapted to the production of corn, I should probably pursue this plan. But I regard the question before us, as an entirely different thing. Here is a crop of corn in the field already made, and now we desire to know whether we can pull the blades and cut the tops off this corn without injury to the grain. We desire of course, the *grain* should not be injured, and yet we wish to save the fodder. Perhaps if cut off at the ground both ends will be met; or possibly

either will injure the grain more than the fodder is worth. Now it seems to me that the most rational thing a farmer could do under such circumstances, would be, to select three lots, no matter about the size, nor whether equal in size, so that the corn is good and uniform, and there is enough in either lot to make a bushel of shelled corn. Then strip the blades and cut the tops from one lot, cut off at the ground and shock one lot, and leave the third with blades and tops all on, to try out. Then at gathering time, house these three lots separately and let them remain until thoroughly dried out, it matters not how much longer. The measuring and weighing may be done in January or May, or a year afterwards. The "rats and rogues" will not affect the *quality* of what they leave, and if they leave him a bushel of each, his test will not be affected by what they take away. Now then, when he measures and weighs a bushel of shelled corn from each one of these lots and finds that they differ in weight from one to three pounds, is he not authorized to conclude that his treatment of the corn in the field, with respect to the fodder, made the difference? But is there any defect in the mode of test? Yes, there may be. The fodder may be pulled or the corn cut down too soon, or too late. It may be a matter worthy of experiment to ascertain *when* fodder may be pulled or corn cut and shocked. Experienced farmers, however, agree pretty well by the mere looks of the corn.

I think all the points mentioned above are absolutely essential to a reliable test. Uniformity in the field, thoroughly dried in the house, shelled and measured in equal quantities by measure, and each measure weighed, in order to determine which is the heaviest corn by measure. Now all the experiments referred to by Dr. Polard, as well as Mr. Ruffin, failed to meet the above requirements in two particulars—they measured their quantity by the surface it grew on, and they failed to measure it in the half bushel; and then if left in the house long enough to get dry, the "rats and rogues" would, or might determine the question after all. *This is a good argument*, and I am indebted to the Doctor for it, not that he intended it for my benefit, but in stating that Mr. Seaborne let his corn get dry before he shelled it, the enquiry ran through my mind, what were rats about while it was drying? Of course they were testing the quality of the different lots, and every body that knows anything about rats, knows they are good judges of grain, and that they always take the best first.

Now I think the Doctor "had better give it up," until he shall have made a test of it himself, and then he can speak of what *he* knows.

But if the test made by the Hillsboro Club was correct, why be surprised at it? If my theory is correct, the results of that experiment are perfectly rational: and I may say my theory is based on those results.

When a stalk of corn is cut off at the ground, all circulation ceases, so far as adding substance to any part of the product is concerned. The whole structure is porous, and the fluids doubtless evaporate without increasing the weight of any part. However, the matter is so easily tested if one will only take the trouble that I hope a number of farmers will take it upon themselves to experiment in the way indicated above, and thus settle the question in the only way it can be fairly conclusively settled, and each give the result of his experience through the columns of the *Planter*.

S. M. SHEPHERD.

Greenwood Depot, Va.

[For the Southern Planter and Farmer.]

Will you allow me to ask a few questions in your valuable magazine, which, if properly answered, must benefit many besides myself.

I have an orchard of about two thousand pear trees—some of them six years old. They have been carefully cultivated, and until the summer 1870 three looked as thrifty and promising as I could expect them. During the summer we had a severe thunder-storm, accompanied by the most severe high wind. A few days after the storm I noticed, in passing through the orchard, a great many trees (which were vigorous a day or two before) blackened and drooping as if scorched by the lightning—I could only then attribute it to the lightning. I had the affected branches cut off, and in a few days I noticed that the disease was increasing, but no new tree was affected. In the fall of the same year I had the trees closely pruned. Some I saved, the majority died. In the summer of 1874 I noticed the same disease appearing to a more alarming extent. In December I cut off every branch that was at all affected, and the trees that looked as if dead, I dug up and put new ones in their places. Now I wish to know the cause of the blight, and the remedy for it. I have watched with interest the proceedings of the Farmers Club of New York. A great many theories were advanced regarding this blight, but none were practical enough to suit my views. If deep plowing is the cause, why were not all affected in the same way? All were plowed alike. You often see a vigorous tree and a blighted one standing side by side, only twenty feet apart. They were planted alike, measured alike, and cultivated alike. What is the cause of it? Can some reader of your magazine give the cause and the remedy? If so, none will thank him more than

ENQUIRER.

[Will some of our Horticulturists answer the above.—ED.]

There are now over 650 Subordinate Granges in Mississippi, comprising a membership of fully 40,000.

Regulations for Organization of Pomona Granges is ready for distribution.

The headquarters of the National grange has been removed to Louisville, Ky. Persons desiring to correspond will note the fact.

[For the Southern Planter and Farmer.]

MELIORATION OF GARDEN SOILS.

We are inclined to the opinion that the melioration and proper culture of gardens is very much neglected by our farmers. The advantages of a well kept garden, which in fact is a miniature plantation of diversified crops, are second only in importance to that of a well tilled farm; and one of the sources of the health and welfare of the family, and good living cannot be expected where but little attention is paid to vegetables and fruits, of which latter a few dwarf sorts should be cultivated in every garden. They soon come into bearing and are always appreciated. We mean the kitchen garden and *truck patches*, from which supplies for family consumption are produced.

The labor of cultivating vegetables, especially in stiff tenacious soils is greatly increased year after year by annual cropping and neglect of fertilization, causing the soil to *run together* and become cloddy and tough, and the best pulverizing implements may be employed with only partial success; consequently the crops become smaller and of less value in proportion to the negligence and inattention.

We now proceed to consider *how* we can best remedy this yearly increasing barrenness and inaptitude of soil and fruitless expenditure of labor.

The sovereign remedy for stiff compact soils, is a bountiful supply from the barnyard and stables, and we should manage and practice as follows:

After the crops have been removed and the ground softened by the autumn rains, but not wet, the soil should be moved to the depth of two spades, and the surface kept in a rough and ridgy condition. After having received a few hard freezings, a *liberal supply* of decomposed barnyard or stable manure, or a mixture of both, should be freely applied. The soil cannot easily be made too rich, nor can there be too much soil; and as soon as the ground can be worked, re-spade and mix in the manure. This may be repeated during the latter part of winter; and in early spring the use of the rake will produce a good and sufficient tilth; and for late vegetables, the mattock and rake will make it all right.

It is necessary that this process should be practiced to some extent every year, by means of which the crops will be doubled or trebled, the labor of cultivation greatly reduced, and the quality of the crops improved to a great degree.

Another means employed to bring about disintegration of soils is *lime*; in quantities varying according to the condition of the soil: but, this agent will not act with effect unless the soil contains vegetable matter, producing humus and a medium proper for its reception and action.

SANDY SOILS.

Many of our gardens are so situated as to present difficulties of a nature exactly opposite to the soils we have just referred to; and the means to be employed for correction are essentially different, except, as to the use of lime, which has the singular property of pulverizing stiff soils and closing those that are sandy and light.

In addition to the use of lime, and even without it, sandy soils may be rendered very productive and kind by liberal dressings of muck, ditch mud, and clay. These should be collected in heaps or composted in the fall, and applied in early spring, mixing well with the soil. This treat-

ment may require more labor and expense than that expended on stiff soils, which may also be rendered more friable by the use of sand, but the results will be equally satisfactory.

We have had reference mainly to gardens and truck patches, cultivated for family use, but the means recommended may be extended to commercial gardens and farming lands as well.

Whilst on the subject of gardens it may be proper to remind cultivators that, without good and improved utensils there is loss of time and labor, and we would especially recommend for small gardens the four tined steel spading fork. It is a very valuable implement; and, the steel rake with *eight* teeth is indispensable in destroying with facility incipient crops of weeds, and in smoothing the soil and producing that fine tilth so necessary in putting in seeds and their after culture.

Keswick Depot, Albemarle county, Va.

J. FITZ.

MORE EDUCATION AMONG FARMERS.

It is a fact shown before the British Parliament, that "while the rental of land in Ireland had doubled during the previous hundred years, and that of England tripled, the rental of Scotland had sextupled itself in the same time." This is attributed mainly to the vastly superior school system which Scotland has possessed, and the skill and enterprise it has fostered among the people. It is a fact that a truck-farmer within a dozen miles of any of our large cities, will get a clean profit of two or three hundred dollars from an acre of land, while the average old-style farmer, hardly gets that amount of profit from his hundred acres or more. These facts are worth studying by the still large class who do not see the use of agricultural papers and teaching, etc., think muscle is the main thing in successful farming. The truck-farmer studies his market, knows what is wanted, learns how to raise it, when and where to sell it, believes in manure, buys it, believes in knowing all about his business, takes his paper, reads and thinks, don't kick at facts because they are printed, keeps his eyes open, and drinks in knowledge from men and books. He keeps learning and succeeds in his business. There is still a large class of our farming population completely stereotyped. Many take no agricultural paper, attend no fairs, no farmer's club, try no experiments, have no faith in improved tools and stock, and are hardly able to tell at the end of the year whether they lose or gain in their business. Success in cultivating the soil is already, and is to be more and more, dependent upon brains. Men who read and think most, plan most wisely and execute most skillfully, will succeed best. We need all the help we can get from the teachings of science, from journals, from fairs and clubs, as well as from the daily experience of the fields.—*American Agriculturist.*

"THE COLONEL" is a dark iron gray, foaled at Courtelvain, France, the 15th of April, 1863, by Fleur d'Epine, belonging to M. Gannet, who took the premium of the first prize at Chartres at the exhibition of 1863, and sired by Empereur, belonging to M. Desvauxrose of Courville, Eure et Loire, who took a premium at Illiers in 1861, at Evreux in 1863, and Illiers in 1865. (Signed) The Mayor of Cernay, Bondeau, France, April, 1866. *Description.*—The Colonel is a dapple iron gray, weighed when 3 years old, on his arrival from France, 1280 lbs., and weighed the 20th Oct., 1869, 1690 lbs, and March, 1875, 1916 lbs., and measured 16 hands 2 inches in height, is square and full in quarters, docile and sound in every respect. His colts are usually gray, with his white stripe in the face, and not coarse or rough, but of quite a finished appearance. He walks over 5 miles per hour, trots square and smooth, and has fine and lively natural action and speed for his class and size, and was imported in 1866. He is still owned by S. W. Picklin, of Belmont Stock Farm, near Charlottesville, Va. The Colonel has been exhibited at all our State Fairs since their new era, and at Lynchburg, Culpeper, Staunton and Leesburg, and four State Fairs of Maryland, and taken first prizes and honors in all cases but once. Each at Richmond, Staunton and Baltimore three second prizes were awarded him. See next page for cut, which fails to do him justice.



 PROFITS OF SHEEP.

A correspondent of the *Practical Farmer*, residing within twenty-five miles of Philadelphia, states that one of his most certain and reliable sources of profits from year to year is keeping sheep. When I first began farming, twenty years ago, he writes, I depended entirely on Southdowns. They have always proved with me prolific breeders, capital nurses, hardy and good feeders, and my Southdown mutton ranks in the market with "gilt-edge" butter. I inform my regular customers when I am going to have a fine leg or loin of pure Southdown, and they go off fast at three to five cents above the market price. In fact, Southdown mutton is the best mutton in the world.

If quality of meat was the only desideratum I would make no change, but as coarser wools now bring the highest price, and as perhaps, I gain a little in weight, (of which I am not altogether certain, but at least do not loose any,) I have made one cross on my flock of 100 ewes with the Cotswold. The best results and the finest carcass have resulted where the Southdown buck was used on the Cotswold ewe. I do not want any finer sheep than this makes, and I try to keep them for my purpose one-half Southdown and one-half Cotswold. What lambs I have to spare are all sold in advance to your butchers about eight dollars per head. I raise roots, which I consider indispensable in the sheep business, and with *good shelter and good management*, I have the lambs in the market in March and April. I consider the roots make a good substitute for grass, keeps them in good heart and with fine health for early pasture. It promotes the flow of milk appetites. I have always followed the advice in your paper, to keep all my animals *healthy and thriving*. If they once go down or become stunted, much of one's feed is thrown away. Two-thirds of my ewes usually have twins. With lambs at eight dollars to nine dollars each, and wool at fifty cents per pound, your readers can figure up my profits on 100 ewes.

I will close with one remark: that without a root crop of about 1,000 bushels, I would not keep sheep. Not that these are all fed to the sheep, as cows and horse are all benefited by them, but for sheep they are indispensable.

[This necessity for turnips does not apply with equal force to our Southern farmers, as our pastures furnish something green nearly the whole of the winter; still we advise their cultivation for this purpose. Any one who will sow rye among his corn in August, will have something equally as good as roots, at much less cost.—ED.]

 SHEEP DID IT.

A Maryland farmer, who has lately visited some of the best sheep farms in England, makes the following statement in the April number of the *American Farmer*:

Within the last fifteen months forty-eight ewes belonging to the estate of Aston Rowant, have produced 295 lambs, all of which are still living, or have been sold fat. Forty-four have each three pairs, and most of them in less than fourteen months. Two ewes brought seven lambs each, viz: two a few days before Christmas, 1872; two in June, 1873; and three in January, 1874. One ewe produced eight lambs within fourteen

months—two of the lambs were sold for £5 at Easter. Yesterday the same ewe had four lambs, all of which are strong and healthy; the mother is doing well and in good condition. Twenty-one of the above ewes are Dorset—twenty-seven are either Hampshire downs or half-breeds.

The above is taken from the farm record of the estate, under the management of T. S. Jackson. The American visitor concludes his report in these words:

The estate of Aston Rowant, it should be remarked, is not one that is carried on for mere profit. The lawn, shrubbery, conservatories and plantations generally, exhibit the exquisite beauty with which wealth and taste adorn so many places in England. Regarding them with intense gratification, and thinking of the immense amount of money required to keep up this display, I said to my worthy and intelligent guide: "I should like very much to know the pecuniary results of this style of farming in your country." He replied: "As you live in America, I will tell you what I do not speak in the neighborhood—my balance sheet for last year shows a clear profit of £1,800 (\$9,000)," and he added emphatically, "Sheep did it!"

[We do not believe that the statement with regard to the sheep is correct. It is simply impossible. We believe in sheep. We think them the best stock the farmer can raise, but we don't believe in miracles of this kind.—Ed.]

THE GREAT FARMER OF THE WORLD.

A Sacramento paper publishes the following respecting the farming operations of a man whom it denominates "the largest farmer in the world," which, considering that Dr. Glenn "runs" his farm of 50,000 acres himself, personally superintending it all, the application is perhaps correct. His case illustrates a point often made, that farming may be conducted upon a large scale as well as any other business, and that when it shall be carried on with the same order and nice adjustment of means to end as is cotton or iron manufacture, it will pay as well.

"The great farmer of the world, Dr. Hugh J. Glenn, of Jacinto, Colusa county, California, has raised and harvested the past season, on his own farm, 600,000 bushels of wheat. This would load eighteen 1,000-ton ships, or three hundred canal boats. All this wheat he has now in his warehouses, ready for shipment when the water in the Sacramento river rises sufficiently. The Doctor pays \$90,000 freight to put his wheat in the San Francisco market. The Doctor is a wonder to the agricultural world and to himself. He runs ninety gang-plows and a whole county's population in the harvest-field, with a dozen threshers. His farming is not confined to wheat alone. He markets \$100,000 worth of stock each year. Dr. Glenn is a practical farmer, and manages all his immense business himself. He can mend a trace and make a key to an ox-bow with his jack-knife, just as easily as drawing his check for \$100,000, which he can do every day in the week. Dr. Glenn is a big-hearted man, and was born in Augusta county, Virginia.

BREEDING AND FEEDING PIGS.

Mr. Joseph Harris, of Rochester, N. Y., stated, in an address at the meeting of the Massachusetts Board of Agriculture, that he believes in having fattening pigs grow larger all the time. Food consumed by hogs that only hold their own is all wasted, except what is saved by the manure. Much depends upon good breeding. We should breed out all poor points, and then breed in a good, digestive apparatus. He would have pigs eat and digest more food than they do now; the more the better. He related an experiment in running a threshing machine. One horse being disabled, he tried to make its mate do the work. He found that it took all the power of one horse to keep the machine going, without threshing a particle of wheat. When the other horse returned, he saw he was really getting his wheat all threshed by one horse, although two horses were at work. A third horse being hitched in, the amount of wheat threshed was just doubled. Fifty per cent. more power gave one hundred per cent. increase. It was the same with pig feeding—give a pig just enough to run the machine and the power is all lost. What is added after that is all gain. So we want pigs that will eat, digest and assimilate a large amount of food. The number of pounds of corn required for a pound of pork depends largely upon the breed of hogs fed. Experiments have been tried, which show a difference equal to the difference between eighty-five per cent. and fifty-seven per cent., as the cost of supporting the present condition.

The economy of cooking food depends upon circumstances; as, for instance, the ability of the hog to assimilate more or less food than he can digest. Cooked food must be given more frequently than uncooked food. The value of the manure made from a bushel of corn does not vary greatly, whether fed to one animal or another. Hog manure is rich, because hogs have good food to eat. There is nothing in the manure except what is in the food. He believes that he can obtain phosphoric acid, nitrogen and potash cheaper than animals than from commercial fertilizers.

THE GRANGE.

Bankers have their "Boards," merchants and manufacturers their "Exchange," mechanics their "Unions," but the farmers and tillers of the soil have, until within the last few years, had no such organization; hence, they have labored under great disadvantages. The Grange is their "Union," and is designed especially for their benefit, and generally of the whole country; for as agriculture is the foundation upon which rests the prosperity and success of all other enterprise, whatever shall be of benefit to those engaged in this highly honorable and necessary employment, must of necessity result in the good of all others. Hence arises its importance, and its encouragement and maintenance is to be the desire of every well wisher of his country.

ITS SECRECY

is only intended to secure its purity and permanence, and to promote the general welfare of the Order, and contains nothing to the

injury of other occupations. In its workings it to a great extent secures the members from imposition and furnishes the means of excluding the unworthy from its benefits, and while none are received among us on account of their wealth or honors, none are excluded on account of their poverty or misfortunes, if found otherwise worthy.

ITS SOCIAL FEATURE.

The Grange is highly social, and affords an opportunity to its members of cultivating the social relations among themselves to an extent almost unknown in other Orders. At its regular meetings, which are usually once a month, all the members have a kind of reunion, when their various plans and purposes, the general news, and various other matters are discussed, and especially agricultural, horticultural, and domestic economy, stock raising and kindred questions are investigated, views interchanged, etc., and thus all are benefitted. In these monthly re-unions many who would startle at the idea of making a speech, do, in a conversational way, impart to their brothers and sisters of the Order much valuable information by their social "chit-chat." It was contemplated by the founders of the Order that at these meetings each will bring his pic-nic basket for the feast; when this is practiced it becomes a kind of holiday and relaxation, much needed by these sturdy sons of toil, and they return to their homes with renewed energies, and with greater zeal and vigor, to again resume their daily toils. We hope to see this feature of our excellent Order carried out in all our granges. One day in the month can be well spared for this purpose, especially when such great benefits are derived from it. Those Granges who have practiced this feature of the Grange have found this the profitable day of the month, while upon the contrary, where the social feature is neglected, the attendance on the meetings is small; and if even a quorum is present, the business is done hurriedly and in an uninteresting manner, and the members become careless and are ready to conclude that they do not see much of the benefit of the Order, and the time given to it is all thrown away. This is one great reason why some of the Granges are in a languishing condition.

ITS EDUCATIONAL FEATURE.

In many parts of the country the Patrons of Husbandry are not only sending their sons to agricultural schools and colleges (as all that can should do), but are also organizing Grange schools in their respective neighborhoods, for the education of their children at home, where they will be educated and trained under the eye of their parents and home influences, thus uniting practice with theory. We would be glad to see all our young men in agricultural colleges, where they could obtain all the advantages of scientific instruction; but as this is out of the power and beyond the means of many, we are glad to see steps being taken to educate, not only our sons, but our daughters likewise, in schools within our income, while at the same time they are kept familiar with the every-day home affairs

which is calculated to make them more familiar with those things when the entire responsibility falls upon them, as it soon will. One of the great wants of the South is an intelligent, educated, and scientific class of farmers and farmers' wives. Whenever we can have this, and have our farms cultivated on scientific principles, with improved implements, and proper attention given to raising improved breeds of stock, there is no country in the world that will be superior to the Southern States. Let us therefore, as Patrons, labor for the accomplishment of these purposes, and we shall soon see our labors abundantly rewarded.—*Exchange*.

EXECUTIVE COMMITTEE.

The Executive Committee of the State Grange of Virginia met in Staunton on the 13th July pursuant to call. Present—A. B. Lightfoot, J. W. White, R. L. Ragland, and A. M. Moore.

A petition from a Subordinate Grange asking relief in behalf of a distressed family was considered, and the committee rendered as their opinion that they had no constitutional authority for making donations from State treasury for such purposes, and recommend the reference of the application to the County or District grange to which the party belongs.

Resolutions fixing the commission of agents (heretofore adopted) were amended, as were also resolutions relating to Pomona Granges.

Evidence in a case of a brother who had joined the Order who was ineligible was submitted. Committee sustained the Worthy Master in suspending the brother from his office of a Subordinate Grange, and ruled in view of the fact that he is still engaged in an occupation in conflict with the purposes of the Order, that he be allowed the privilege of withdrawing within thirty days from the issue of notice, failing in which the Worthy Master of the State Grange is directed to notify his grange that he is expelled from the Order.

The committee deems it inexpedient at the present time to take action on the question of insurance.

The Chief of Bureau submitted his quarterly report.

Attention was called to the following resolutions, reported to the State Grange by the committee on good of the Order, but which was not finally acted on by that body:

Resolved, That it is expedient to return a portion of the charter fees to those Subordinate Granges which were left destitute of funds after meeting expenses of organization.

The committee adopted the following resolution:

Resolved, That the claims under the foregoing resolution are considered just, and the committee recommend payment of the same by State Grange.

The committee fixed the tax on the commissions of clerks and agents for the support of the Chief of Bureau.

The following rule was adopted:

No Patron shall make public the confidential circulars issued by the Chief of Bureau, under penalty of expulsion from the Order.

The following resolution was adopted :

Resolved, That the plan, rules, and regulations for the organization and management of Pomona Granges recommended and adopted by the National Grange, be adopted and recommended by the committee for the organization and management of Pomona Granges of Virginia, as far as the same are applicable, and according to the laws passed by the Grange on this subject, and that the Master and Secretary of the State Grange be and they are hereby authorized to publish said rules and regulations for the information and guidance of the Pomona Granges.

Brother J. W. White was authorized to make contracts for printing of the State Grange.

The Treasurer submitted a report of receipts and expenditures to July 1st, 1875.

The Secretary was directed to prepare and publish an abstract of such portions of the proceedings of the Executive Committee as may be properly made public.

The committee adjourned to meet in the city of Norfolk, subject to call of the Chairman.

M. W. HAZLEWOOD, Secretary.

NEW YORK PATRONS OF HUSBANDRY.

KNICKERBOCKER GRANGE NO. 154—RECEPTION OF DISTINGUISHED VISITORS.

Knickerbocker Grange was organized in New York city in February, 1875, by a number of gentlemen interested in agriculture, most of them practical farmers, but including several editors of agricultural journals. It numbers about eighty members though this number would be increased by hundreds but for the strictness of the rule to admit none not practically interested in farming. A majority of its members are market gardeners who live on the lines of railroad leading out in all directions from New York, and to whom the city is probably as central a rendezvous as could be found. The following are the officers of the Grange:—D. D. T. Moore, Master; T. E. Willson, Overseer; C. E. Otis, Treasurer, and J. W. Naughton, Secretary. They are now negotiating for a large room, to be centrally located and used as a Grange headquarters for brethren visiting the city, with reading room and library, making in fact a Grange Club House for the use of members of the Order temporarily visiting the metropolis. It is designed to establish also an eating house, with sleeping rooms attached, for the convenience of country Grangers. Such an house is almost a necessity for members of the Knickerbocker Grange, many of whom live from five to twenty miles from the city, and are forced to remain in New York over night whenever they attend a meeting.

Knickerbocker Grange had the honor the past week of extending a welcome to Col. D. Wyatt Aiken, Master of the South Carolina State Grange and member of the National Executive Committee. Among visiting Patrons present at the Grange rooms, No. 189 bowery, were Mortimer Whitehead, Master of the New Jersey State Grange; John H. Vail, Master of Chester Grange; Nathaniel Munday, Master of Elizabeth Grange; J. D. Todd of Golden's Bridge, R. S. Todd of Three Rivers, C. H. Hutton, State-Purchasing Agent of Virginia, and brethren from Westchester and Orange county N. J., Pennsylvania and Virginia. Brother Whitehead of New Jersey, acted as Master, and after the initiation of a candidate to the degree of matron, a recess was taken for refreshments. Upon reassembling Master Aiken delivered a brief address, full of instruction, upon the ritual, explaining the meaning of the secret work, and the necessity for its strict observance. Brother Whitehead followed, dwelling particularly upon the social and educational advantages of the Grange, which has already made a great change in the ancient order of things in the country districts. Other speeches of a complimentary and personal nature were indulged in, and the occasion was taken for many interchanges of views that will be of material benefit to the Order.—*Rural New Yorker.*

LINES WRITTEN UNDER THE DOG-STAR.

The following question was asked in the catechism of the Commissioner of Agriculture, returnable June 15th: "What is the principal obstacle to sheep-raising?"

The response from the correspondents was so uniformly "dogs," that Mr. J. A. Stewart, (who happened to be in the Commissioner's office during the conversation in reference to it) was requested to write something on the subject. After a short absence Mr. Stewart returned with the following:

ON DOGS.

A HYMN OF RESIGNATION.

Tune: "Old Father Grimes."

To be sung by Grangers at their meetings, and by Farmers generally.

"Let dogs delight to bark and bite,"
Or chase the buck and ewe;
Let dogs eat sheep while farmers sleep,
"For God has made them so."

Let dogs come forth to fill the earth—
Let sheep in plenty grow,
To make the meat for dogs to eat,
"For God has made them so."

Let dogs, a score, surround each door,
The lank, the lean, the low—
Or track at night, the lambkin's flight,
"For God hath made them so."

Let flop-eared hounds range pasture-grounds,
 To scent the buck and ewe ;
 Let curs yelp round, as well as hound,
 " For God has made them so."

Let every man keep, if he can,
 A dozen dogs in tow ;
 And let their greed on mutton feed,
 " For God has made them so."

Let man eat hogs—feed sheep to dogs—
 Raise mutton here below
 To feed the dogs, while man eats hogs,
 " For God has made them so."

WHERE THE MONEY GOES TO.—Some people cannot understand why it is that the residents of the Southern States are so crippled financially. Let them ponder over two facts, and then they will see more clearly. Georgia alone paid \$24,000,000 for grain, meat, flour, meal, horses and mules, in 1873, and Alabama about \$18,000,000. That's what went with the money. It will not be so again. The amount this year has already been reduced in Georgia to about \$10,000,000, and in Alabama to \$8,000,000, and but for the meat, neither State will have occasion to spend more than \$5,000,000 for subsistence next year.

Family Department.

WHAT SHALL WE EAT.—

The paper by Dr. Cutter in the last issue of the *Journal*, upon the chemistry effects of fine flour, has awaked much interest and inquiry among our readers. There can be little doubt that the questions asked by the writer are of much importance to every one, and that the exclusive use of bolted flour in bread-making is opposed to the science and knowledge of the age in which we live. We grind that noble grain, wheat, in our powerful mills, and then with the bolter remove from the powdered grain everything that resists the action of the stones, so as to retain for use only the starchy portion, which is elegant to the sight. In the rejected portions are found the most important nutritive principles, and these, in the form of "shorts" and "fine feed," we give to our horses and our cows. As we have looked into the "bins" at the farm, filled with these rejected articles of human food, the exclamation has been often forced from us, "What a pity!" Pity indeed, it is that "fashion" should over ride interest and physical well-being; for nothing but fashion holds the *snow white* wheaten loaf in its place upon our tables.

If this must continue, we would suggest to those who desire to obtain all the elements in food necessary to health, to procure the wheat phosphates and nitrogenous compounds by a free use of milk. If a generous milk diet is associated with the white bread, the evils of imperfect nutrition may be avoided. Nothing excites the lacteal

secretion in cows like miller's "fine feed," and we find in the milk-pail in new associations the rich elements we reject in the grains of wheat. Very few indeed can obtain pure milk and cream, but every family ought to be able to obtain whole wheat flour, in its best condition. At the present time, it is the practice to a large extent among millers, to grind the finest, soundest wheat into fine flour, and the poorest into what is call "Graham flour." This term "Graham flour" ought no longer to be used. It is a kind of general name given to mixtures of bran and spoilt flour, to a large extent unfit for human food. What we need is good, sweet, *whole wheat* flour, finely ground, and securely put up for family use. This article we do not find in the market, and the Western miller who will give his earnest attention to furnishing such flour will realize a fortune speedily. The crown loaf made from whole wheat is to our eye as handsome as the white. It can be made with all the excellences of the white, so far as lightness is concerned, and it is sweeter and more palatable. With this loaf we secure all the important nutritive principles which the Creator for wise reasons has stored up in wheat.—*Journal of Chemistry.*

APPLES AS FOOD.

We can fully indorse the following from the *English Garden*: With most of us the value of the apple as an article of food is greatly underrated. Besides containing a large amount of sugar, mucilage, and other nutritive matter, apples contain vegetable acids, aromatic qualities, etc., which act powerfully in the capacity of refrigerants, tonics, and antiseptics; and if freely used at the season of mellow ripeness, they prevent debility and indigestion, averting, without doubt, many of the 'ills which flesh is heir to.' The operatives of Cornwall consider ripe apples nearly as nourishing as bread, and far more so than potatoes. In 1801—which was a year of much scarcity—apples, instead of being converted into cider, were sold to the poor; and the laborers asserted that they could 'stand their work' on baked apples without meat, whereas potato diet required the addition of meat or other substantial nutriment. The French and Germans use apples extensively. The laborers depend upon them as an article of food, and frequently make a dinner of sliced apples and bread. There is no food cooked in so many different ways in our country as apples, nor is there any fruit the value of which, as an article of nutriment, is so great and yet so little appreciated.

RED ANTS—HOW TO GET RID OF THEM.

If any of your readers are troubled with the red ants getting into their good things, I have a bit of information in reference to them which every one thus plagued would be glad to have. The red ant will not crawl on iron; and to prevent their going into your dairy, meat-safe, or sideboard, you have only to place them on iron feet,

which may be done in the following manner, viz: Bore holes in the lower ends of the legs; put in iron rods of suitable size, which should extend three inches below the wood. Rest on rocks, if out doors; if in the house, on bits of slate or sheet-iron. I have had my dairy thus fixed for the last ten years or more, and the first one of these little pests has yet to show itself in it.

Fluvanna county, Va.

J. C. HOLLAND.

SMOKING ROOMS IN BOARDING SCHOOLS.—The *Philadelphia Medical and Surgical Reporter* says: “We have recently been surprised to learn that in two well patronized and highly praised boys’ boarding schools, near this city, *smoking rooms* are kept for such of the boys as have permission from their parents to smoke! We are further informed that these are not singular in that respect, as many other schools also have them. The pupils are from nine to eighteen years of age. Surely, if parents are so grossly ignorant or criminally negligent of the laws of health, professed guides of youth ought to know better, and discourage by every possible means the use of tobacco in growing boys. It may be a question whether it is harmful to a man, but there is none whatever that it is seriously injurious to boys.” This fact, by the way, is not so generally known as it ought to be. Fathers who smoke sometimes feel that to forbid their boys the same indulgence savors of inconsistency; but they may safely take the ground that tobacco should not be used in any form during the period of growth and adolescence. As our contemporary remarks, the mischievous effects of the weed in boyhood are unquestionable, whatever difference of opinion there may be as to its moderate use later in life.

THE “HEATHEN CHINEE” ON RAILROADS.

The following, according to *Iron*, is a specimen of what the *Houei Pao*, a Shanghai newspaper, has to say about the proposed introduction of railways into China:

“Remember, O reader, how the Celestial Empire prospered for three thousand years, till the barbarians came in and introduced their horrible customs. Now they allow no one to rest. They keep everything moving. They rush with their accursed engines into every creek and river of the country, spying out and worrying a happy and industrious people. The English are like their own steam, always ‘boiling and bubbling.’ They upset everybody to make money out of them. They have drained the land of Sycee silver, and now they want steady, law-abiding subjects of the sun and moon to spend their money in railway engines, which blow up and cut people into little pieces more effectually than the public executioner could do. The idea is monstrous.

“Canals are much better than railroads. The good Confucius invented them, and it was during his life on earth that they were dug. They have been tested by time and experience, whereas rail-

roads are only sixty years old. Life on a canal junk is tolerably secure. A man can sleep by night and fish by day, and hold his soul in peace. A merchant need not buy a coffin before he starts upon a journey. All he wants is time and patience. There is a commercial advantage, too. Goods cannot be accumulated, and thus prices can be kept up. But note what happens when railroads are introduced. In the first place, they are dangerous. They love accidents. The engines are like gunpower with fire under it. Trains run into each other, and leave only corpses and lumber on the road; or they rush off the tracks, jump down precipices, tumble into rivers, and very often crash through honest men's houses. Sometimes they run away of their own accord, and then they go so fast that wheels fly to pieces and kill everybody near them. The barbarians know all this so well that they keep surgeons to attend to the wounded, or pay beforehand for the coffins, perfumes, colored papers, crackers, and other funeral offerings to the priests of the great Joss. Then they publish big books full of lists of accidents, and of the killed and wounded. Beside all which, merchandise is carried so fast by these railroads that stores are filled rapidly, innocent tradesmen have to pay storage whether they want the goods or not, and things are made too cheap. Then railroads would occupy space. Agriculture and farming would be stopped, and the good people who now carry goods in boats, or on their backs over the mountains, would be deprived of their livelihood. There is no doubt that canals are much better than railroads, and the wisdom of the holy Confucius must be respected."

A FRENCH LADY-PHYSICIAN.—Madame Bres, who was received, this last June, into the Faculty of Medicine of Paris, is the first French lady who has taken such a step. She passed all her examinations in a most creditable manner, and M. Wurtz, the president of the examining board and dean of the faculty, addressed her in the following terms: "Madame, you have not only raised women from the secondary position they have held in medicine, but your thesis is one of the best that the faculty of Paris has ever received, and it will be consigned with honor to its archives." The title of the thesis is "La Mamelle et l'Allaitement," a very appropriate subject for a doctress; it is treated in an anatomical, a chemical, and a physiological point of view.

TREATMENT OF TYPHOID FEVER.

Dr. George Johnson, in the London *Practitioner*, takes the ground that in the treatment of typhoid fever careful nursing and feeding are of primary importance, while, as a rule, no medicines of any kind are required, and when not required they are often worse than useless. Diarrhœa is a less frequent symptom than before this plan

was adopted, and when it does occur it is far more tractable, while tympanic distension of the abdomen is a rare event. The mischievous opiate enemata and the torturing turpentine stupes have disappeared together. He believes that one of the main reasons why there is less diarrhœa than formerly is the careful abstinence from the employment of irritating drugs of all kinds. As a rule, a fever patient at "King's" has the "yellow mixture," which is simply colored water; and, except an occasional dose of chloral to procure sleep, and a tonic during convalescence, no active medicines of any kind. These patients are fed mainly with milk, with the addition of beef tea and two raw eggs in the twenty-four hours, and wine or brandy in quantities varying according to the urgency of the symptoms of exhaustion, especially in the advanced stages of the disease, but in many of the milder cases, and especially in the case of children, no alcoholic stimulants are required from the beginning to the end of the fever, and when not required they are of course, says Dr. Johnson, best withheld. He gives no irritating drugs of any kind, and has no doubt that the comparative infrequency of severe and obstinate diarrhœa amongst his typhoid fever patients during the last few years is particularly attributable to the discontinuance of mineral acid treatment.

THE TREATMENT OF DIARRHŒA.

In a paper in Virchyw's *Archiv*, Dr. Hartsen observes that diarrhœa of all sorts goes along with an irritable state of the intestinal canal, and any increase of this irritability is to be carefully avoided. He considers that the more usual astringents are, in addition, irritants; and he instances among them the salts of lead, zinc, and bismuth. In all cases, soothing means should first be adopted; and of the warm applications to the abdomen, in the form of bread poultices, or fomentations, are perhaps the best. The chief medicine recommended is opium, which soothes, but, in large doses, interferes with digestion. If the diarrhœa be so violent as to hinder the absorption of opium introduced into the stomach, then morphia should be injected subcutaneously. Of equal importance is the diet. If the person be strong, everything, both solid and fluid, should be withheld; but where this cannot be done, the food should be of the lightest and simplest. The author especially refers to rice and arrowroot as simple vegetable diets, while any animal food given should be free from fat. Milk should not be too much used, and in any case should be boiled.

TAR IN BRONCHIAL CATARRH AND WINTER COUGH.

In a note sent to the *British Medical Journal*, Drs. Sidney Ringer and Wm. Murrill state that in the treatment of these complaints they have employed tar in two-grain doses, made into a pill, every three or four hours. From October to January, inclusive, its effects were watched on twenty-five patients, whose ages varied from thirty-

four to seventy. All these patients had suffered several years from winter cough during the whole winter.

Each attack of the paroxysmal and violent cough lasted from two to ten minutes, recurring ten or twelve times in the day and breaking their rest at night. Expectoration was abundant, frothy, and purulent. Breathing was short on exertion, but most could lie down at night without propping. These patients usually began to improve from the fourth to the seventh day; the improvement rapidly increased, and in about three weeks they were well enough to be discharged. The improvement was so decided that even those patients who, in previous years, had been confined to the house during the whole winter, returned to their work. On discontinuing the tar, relapses often occurred in a week or two, but on readministering the medicine relief was again obtained.

BROMIDE OF POTASSIUM IN WHOOPING COUGH.

Dr. W. Smith, in the *British Medical Journal*, says: There is at present a generally diffused epidemic of whooping-cough, and I think it may be useful to suggest a remedy which I have found beneficial—bromide of potassium. It allays the violence of the paroxysms, and cures in a few weeks—sometimes less.

BICARBONATE OF SODA IN TOOTHACHE.

Dr. Dyce Duckworth contributes a short memorandum on this subject to the London *Practitioner* for April. He was called on to treat a case of very severe toothache, and tried various ordinary remedies, including chloroform and carbolic acid, without any benefit to the patient. He then remembered having read that the pain might be relieved by holding in the mouth a solution of bicarbonate of soda. He at once gave the patient half a drachm in an ounce of water, and to his astonishment the pain ceased immediately, and complete relief was secured. He thinks that, as the remedy is so simple and the disease so distressing and often intractable, this treatment may be worthy of notice and of imitation.

A COMMON CAUSE OF APOPLEXY.

In an able article on apoplexy, in the *Popular Science Monthly*, Dr. J. R. Black gives the following hint to brain-workers:

“A middle-aged physician said one day to the writer: ‘As I was walking down the street after dinner I felt a shock in the back of my head, as if some one had struck me; I have not felt well since. I fear I shall die, just as all my ancestors have, of paralysis. What shall I do?’ The answer was, ‘Diminish the tension on the blood-vessels, and there need be no fear of tearing them in a weak place.’ Now, this expresses in plain terms the exact cause of apoplexy in the great majority of instances; and it is one, too, which every one has it in his power to prevent. A blood-vessel of the brain has lost some of its elastic strength; food is plenty, digestion is good; blood is made in abundance, but little is worked off by exercise; the ten-

sion on every artery and vein is at a maximum rate; the even, circuitous flow is temporarily impeded at some point, throwing a dangerous pressure on another; the vessel which has lost its elastic strength gives way. blood is poured out, a clot is formed which, by its pressure on the brain, produces complete unconsciousness. This is the apoplectic stroke. It will be perceived that there are two leading conditions upon which the production of the stroke depends—a lessened strength in the vessel, and an increased tension on it.”

CARBONIC OXIDE IN TOBACCO SMOKE.

Dr. Otto Krause, in *Dingler's Polytechnic Journal*, states that he finds a considerable quantity of carbonic oxide constantly present in tobacco smoke, and that the after effects of smoking are principally caused by this poisonous gas, as the smoker never can prevent a part of the smoke from descending to the lungs, and thus the poisoning is unavoidable. He is of opinion that the after-effects are all the more energetic, the more experienced the smoker is, and he thus explains the unpleasant results of the first attempts at smoking, which are generally ascribed to nicotine alone.

WORK AS A REMEDY.

Dr. Dio Lewis says: A lady has just left our rooms whose case illustrates an important idea. Ten years ago she was an invalid. Her malady was obstinate, and at the end of a year's treatment a consultation resulted in the opinion that her case was cerebro-spinal irritation, from which she would probably never recover. Six years ago her husband died. His estate proved insolvent. The wife engaged in an active occupation to support her three children. In a year she was well, and has remained so ever since.

There are two millions dyspeptics in America. Nine in ten of them could be cured by work.

A wealthy clergyman from a neighboring State assured us that he had spent eight years and thirty thousand dollars in seeking a cure for his dyspepsia. He had travelled everywhere and consulted all sorts of doctors. We are afraid he will never forgive us for telling him that six months' hard work would make a well man of him.

DIPSOMANIA.—

Some extraordinary instances of the insatiate desire, or rather morbid impulse, to drink are mentioned by Dr. George Burr, in a recent paper on the "Insanity of Inebriety." Dr. Bush records a case of an habitual drunkard in Philadelphia, who, when strongly urged by one of his friends to leave off drinking, replied, "Were a keg of rum in one corner of a room, and were a cannon constantly discharging balls between me and it, I could not refrain from passing before that cannon in order to get at the rum." One of the cases described by McNish, in his "Anatomy of Drunkenness," also illustrates this feature. A friend of the subject of it painted to

him the distress of his family, the loss of his business and character, and the ruin of his health, to which he replied, "My good friend, your remarks are just; they are indeed too true; but I can no longer resist temptation. If a bottle of brandy stood at one hand, and the pit of hell yawned at the other, and I were convinced that I would be pushed in as sure as I took one glass, I could not refrain." The late Professor R. D. Mussey, of Cincinnati, relates another case: "A few years ago a tippler was put into an almshouse in this State. Within a few days he had devised various expedients to procure rum but failed. At length, however, he hit upon one which was successful. He went into the wood-yard of the establishment, placed one hand upon the block, and with an axe in the other, struck it off at a single blow. With the stump raised and streaming, he ran into the house and cried, 'Get some rum! get some rum! my hand is off.' In the confusion and bustle of the occasion a bowl of rum was brought, into which he plunged the bleeding member of his body, then, raising the bowl to his mouth drank freely, and exultingly exclaimed, 'Now I am satisfied!'" Dr. J. E. Turner relates a case of a gentleman who, while under treatment for inebriety, during four weeks secretly drank the alcohol from six jars containing morbid specimens. On asking him why he had committed this loathsome act he replied, "Sir, it is as impossible for me to control this diseased appetite as it is for me to control the pulsations of my heart."

REMEDY FOR COLDS.—According to the same French authority, powdered camphor, sprinkled with tincture of iodine, and inhaled by the nostrils, constitute one of the most prompt and certain remedies for coryza, or "cold in the head."

IF HE SAID HE DID, HE DID.—

The little story I am going to tell you happened just before the war, when every one was very, very busy. Soldiers were enlisting and going away from almost every home in the land. One young man had volunteered, and was expecting daily to be ordered to the seat of war. One day his mother gave him an unpaid bill, with money, and asked him to pay it. When he returned home that day, she said:

"Did you pay the bill?"

"Yes," he answered.

In a few days the bill was sent in a second time.

"I thought," said she to her son, "that you paid this?"

"I really don't remember, mother; you know I've had so very many things on my mind."

"But you said you did."

"Well," he answered, "if I said I did, I did."

He went away, and his mother took the bill herself to the store. The young man had been known in town all his life, and what opinion was held of him this will show.

"I am quite sure," she said, "my son paid this some days ago; he has been very busy since, and has quite forgotten about it; but he told me that day that he had, and says if he said then that he had, he is quite sure that he did."

"Well," said the man, "I forgot about it, but if he ever said he did, he did."

Wasn't that a grand character to have? Having once said a thing, that was enough to make others believe it, whether he remembered it or not. I wish all the boys in our land were as sure of a good reputation.—*Christian Weekly*.

GIRLS.—

Artemus Ward never said a wiser thing than this: "I like little girls, but I like big girls just as well." These laughing, happy creatures—the sad, the grave, the gay—all have their separate and peculiar charm for the children of men. From the school-girl of fourteen to the more mature damsel, we love them all; and it is wise that we do so. The world would be a desert without them; and I have no patience with a man who can wilfully say that he has never been entangled in the meshes of sunny hair, or felt his heart thrill at a look from a pair of laughing eyes. In the first place, when he makes a statement of that kind, he will find difficulty to make believers in it. Men, from Adam's time, have been moulded by the "weaker sex."

Weak! Samson, the strong, man of all, lost his strength in the lap of a woman. And so it is with all. We love them for their many graces, for their musical voices, for the beauty God has given them, and because they are weaker than we are, and appeal to us for protection. The touch of a delicate hand, the mellow tones of a girl's voice, the tender glance of beautiful eyes—all these have their power. Man's inherent chivalry teaches him that these are given for his good, to restrain his wilder impulses, and to make him better, purer, nobler. They furnish to the young man an incentive to labor, and point out to him the better path which his feet ought to tread. They enchain the wildest and most untamable of our race, and teach them to take delight in the purer social pleasures. Many a man who has gone astray has been reclaimed by his love for one of these dear creatures, and has lived a nobler life thereafter for her sake. We say, "God bless 'em every one!"

SLEEP AND HOW TO SECURE IT—

Mr. Frank Buckland, in a recent article on this subject in *Land and Water*, takes the ground that it is natural for man, like other animals, to sleep soon after eating. The following passage will be endorsed by all who are in the habit of after-dinner naps or late suppers.

The human frame cannot do without sleep. I believe the reason is that the mysterious property—for want of a better name we call it

“vital energy”—gradually leaks out during the day. During sleep, the machinery of the body, especially the brain, becomes recharged with it. The cause of not being able to sleep—I write now of people in good health, and hard workers with their brains—is that the brain cannot, so to speak, “go down,” but it continues to act, more or less. My father, when writing the Bridgewater Treatise, had his own way of working. He was an excessively busy man during the day, and had only the night hours in which he could write. He generally dined at seven o'clock, and immediately after dinner went to sleep for two or three hours. He then got up, and worked on till two or three in the morning. Just before retiring to rest, he took some light pudding, or a sandwich, with cocoa or milk. Thus he always slept well, as the blood was diverted from the brain to the stomach.

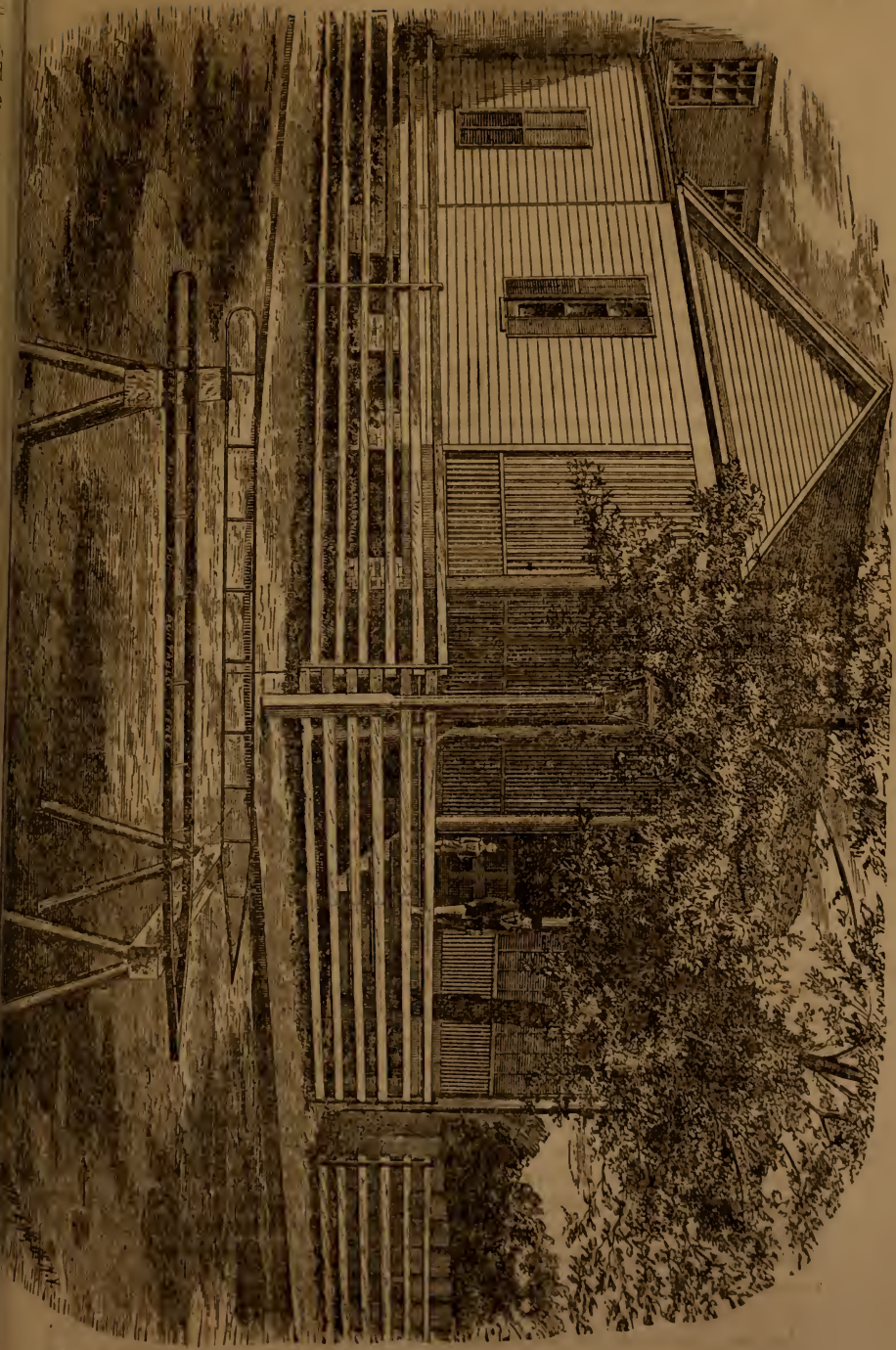
I have no hesitation in saying that the proper thing to do is to go to sleep immediately (or at least very soon) after the meal of the day. All animals always go to sleep, if they are not disturbed, after eating. This is especially noticeable in dogs; and the great John Hunter showed by an experiment that digestion went on during sleep more than when the animal was awake and going about. This is his experiment: He took two dogs and gave them both the same quantity of food. One of them was then allowed to go to sleep, the other was taken out hunting. At the end of three or four hours he killed both of these dogs. The food in the stomach of the dog which had been asleep was quite digested; in that of the one which had been hunting, the food was not digested at all.

IMPROVED STARCH.—A beautiful finish can be given to articles to be starched by taking one-fourth of a pound of starch, and working it over and kneading it with a little water, then placing five or six pints of water in a pan, and adding to this a very small quantity of powdered borax, a small piece of sugar, and a fragment of white wax about the size of a hazel nut, and heating the whole sufficiently. This water is then to be added to the starch, with continual stirring, mixing the two together until the whole is as thick as is convenient for application. If the articles are to be made quite stiff, the strength of the starch may be increased two or three fold.

LEARN FROM BABY.—

Jack heard a very strong young farmer say one day that his baby brother had taught him a capital lesson—that was to *stretch* himself often. Baby did it for some wise reason, he knew; so he had followed the example. Stretching makes you grow, makes you supple and active, and is all together a good thing. Follow the baby's plan, my dears; stretch your arms, legs, neck and body for a few moments, morning, noon and night, until further notice.—*St. Nicholas.*

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Editorial Department.

NOTES FOR THE MONTH.

The month of August was named in honor of Augustus Cæsar. We do not know that he was a patron of agriculture, but we know that he was a kind patron of the farmer poet of Italy, Virgil, and that he spared to him his farm, when he was confiscating all the lands in Mantua, for the benefit of his soldiers.

TAKING CARE OF OATS.

There is as much to be done in this month in taking care of the crops already raised, as in cultivating those in the ground, or in starting new ones. If oats have not been secured, lose no time in housing or stacking them, or in baling them as hauled from the field. If intended for market, we prefer baling them, and it saves time and loss of grain by shattering, to bale as hauled from the field. Use No. 12 wire, and six moderate sized, seasoned sticks, if procurable. We say moderate size sticks (seasoned), because we think much imposition in this matter has been practiced on the consumer, sometimes, no doubt, unintentionally. We had occasion some time since to weigh the sticks put around some bales of straw. They were large, green oaks, and weighed to the bale, from eighteen to twenty pounds. The consumer in such cases is justifiable in refusing to purchase. The winter oat this year has yielded well, and we have no doubt on our minds now that it is a more profitable crop than wheat. We have cut and baled the present season, from four acres of land, 10,500 pounds of winter oats. These, at \$1 per hundred, which we have no doubt about obtaining by September or October, will amount to \$105. Now, this land has not been manured for eight years, when it was in strawberries, and is not rich, capable of producing six or seven barrels of corn, and not more than fifteen bushels of wheat in the most favorable seasons. About one-half of it was much infested with wire grass. The oats were seeded the 14th of October, and were not thick enough on the land, only one bushel to the acre being seeded. They did not come up well on account of the dry season last fall, and in the winter looked as if they were so thin as necessarily to produce a small crop. Besides this, being near the house, they were depredated on the whole season by fowls. If they had been seeded the 1st September, and one and a half to two bushels put to the acre, they would, we confidently think, have yielded one-third more. If the winter oat stood the last winter well, as cold as it was, we may well expect them to stand any winter in our latitude., and if seeded the last of August, or first of September, we believe it would prove one of the most certain, if not the most certain crop, the farmer can raise. On the other hand, we consider wheat the most uncertain crop produced in our latitude.

SEEDING OATS.

We advise then that winter oats be seeded the last of this month or first September, one and a half to two bushels per acre, in the standing corn. Run the cultivator twice in the row, sow the oats, and cover with the cultivator, or if the land is grassy, run the turning plow through the centre of the row, lap the dirt on this from each side, drag down with the cultivator, then sow, and cover with the cultivator. The hoe hands must then follow, and chop between the hills of the standing corn, to cover the oats there.

GETTING OUT WHEAT.

As before advised, get out wheat as soon as possible, and sell, for the first price is generally the best, and much will be saved from waste, shrinkage, and probably stealage in some cases.

FALLOWING

Should be commenced this month for wheat, or winter oats, and prosecuted every opportunity, when the condition of the ground, and other things will permit.

SEEDING CLOVER AND GRASSES.

We omitted to say in connection with the seeding of winter oats, that clover, orchard grass, or timothy, or tall meadow oat grass, might be very advantageously seeded the last of this month along with the oats. As at present advised we prefer to sow clover, one and a half gallons; orchard grass, one bushel; and tall meadow oat grass, one bushel to each acre.

TURNIPS.

This is the principal month for putting in the turnip crop. In the first part of the month (if not sown last July) from 1st to 15th August, sow "Norfolk," "Globe," and "Aberdeen," and "Red Top." As a general thing the "Red Top" should be sown a little later than the former, as it matures earlier, and does not keep so well. "Seven Top," for salad, sow last of the month, though many now are sowing "Norfolk," or "Globe," the salad being much better than the "Seven Top." The latter requires little or no protection in the winter, while the others do. Turnips may be drilled or sown broadcast. The former is the most certain mode. After the land is well fallowed and dragged, throw two furrows together two and a half feet apart, flatten these down with the back of the drag, or with hoe or rake, and drill with hand, or with drilling machine. The land should be made rich for turnips, either by superphosphates, stable manure, or bone flour—the latter is, however, generally too slow. The custom which prevails in the country of enriching the land with cows penned on it, answers a very good purpose. If sown broadcast, which is the most economical plan, it will be necessary to go over and pull up the largest weeds and grass with the hand. The principal objection to broadcast sowing is the difficulty of getting the seed evenly distributed, and unless thinning is done, they will, in some places, be much too thick.

POTATO ONIONS

May be put out the last of this month, particularly if they are disposed to rot.

ASPARAGUS

Must be kept clean of grass, and the dirt be thrown back to it, if this has not been done since it was thrown from it last month.

STRAWBERRIES

Must be frequently worked this month, with hoe and cultivator frequently run through them. They must be kept clean by constant working, or the labor will be increased if they get grassy.

Well, we may finish the work for the month early if we will "hurry up," and then let us take that little promised recreation. Before closing, let us congratulate the farmers on the bright prospects of good crops the present year. The wheat throughout the Union, with the exception of California, is said to be a fine crop. The oat crop is a good one, and the corn and tobacco is very promising, and, unless a drought intervenes, the yield of each will be large. The hay crop is said to be a short one generally. Should the abundant crops produce lower prices, the farmers have the consolation of knowing that the prices of almost all they have to buy are coming down, and will probably rate still lower.

THE STATE AGRICULTURAL SOCIETY.

We publish in this number of the *Planter and Farmer* an article from the President of the State Agricultural Society, which gives us the occasion to say something, as it always affords us pleasure to do, in regard to the affairs of the Society. Probably, the State is indebted in a larger extent to the labors and expenditures of this organization, under the management of its efficient officers, than is generally supposed or acknowledged.

The people were impoverished by the war, and agricultural and other interests were prostrated beyond any precedent in the history of nations. Adverse seasons in many sections have continuously prevailed to the present time; and yet the people, borne down by their losses and the burden of old debts, have rallied to an extent that the fruits of a few propitious seasons will afford a permanent relief. Under a judicious system of Immigration urged by the Society, the unoccupied lands will be filled up with thrifty farmers, mines will be developed, factories extended and improved, and the wail of repudiationists will be hushed. The Society having fortunately preserved from the calamity of war the bulk of its investments, recommenced its labors six years ago, and year after year its Fairs have disclosed a gradual increase in products of the field, garden, orchard, stable and stock-yard. The distribution of from six to ten thousand dollars in premiums each year has been no small incentive to the stock-breeder and intelligent farmer; and we hope the time is not far distant when Virginia will not be behind any of her sister States in respect to a generally diffused prosperity amongst her citizens. Ten years ago her pastures and stables were stripped of almost every living animal, but now she may boast that they are re-stocked with as valuable thoroughbred cattle, horses and sheep, as can be found in any country. Her great staples, tobacco, corn and wheat, are advancing in production, notwithstanding the first named is burdened with an unreasonable, if not unjust, tax of six to eight millions of dollars per annum to the United States Government. Now, we say, that we are indebted, to a large extent, to the State Agricultural Society for this state of things, and we hope that every farmer, merchant and manufacturer in the State will become a life-member of the Society, and thus increase its influence and means for doing good. The approaching Fair, we have reason to believe, will present a grander display of people and products than any former one, and every farmer, or citizen, of any profession, will be amply paid for time and money in attending it. And more than this: each should feel it his duty and privilege to contribute something to the exhibition in its various departments, and if not in animals, or articles, then in written essays on subjects connected with practical agriculture, &c. This collision of mind and skill will ensure progress, which will tell alike on individual and State prosperity.

POMONA GRANGES.

The Master of the State Grange will be at the following places at the time appointed to organize Pomona Granges and instruct deputies in the work of the fifth degree. The deputies of the judicial districts will be expected to be present, and as many members as possible are requested to be in attendance. The installations will be public: Farmville, August 4th; Glade Spring, August 6th; Wytheville, August 9th; Christiansburg, August 11th;

Lynchburg, August 13th; Staunton, August 16th; Winchester, August 18th; Alexandria, August 16th.

Pomona Granges will be composed of Master and Past Master and their wives who are matrons, and three fourth degree members from each subordinate Grange, who may be elected thereto. Delegates will be required to present a certificate of election under seal of the Grange, attested by their respective secretaries. Each Grange represented is required to send by their delegates the fee of \$2. This fee is in full of all State charges.

THE PLANTERS' CONVENTION.

The planters of Virginia have decided to hold a Convention at Burkeville on Wednesday, the 11th day of August, and it is desirable that every county that produces tobacco, shall send representatives. The prime object of the Convention is to consider the subject of tobacco inspection--to harmonize the views of planters, and to decide what changes in the law are necessary to foster and protect this important industry.

This subject has occupied much of public opinion for several years, and engaged the attention of several recent Legislatures. There is considerable diversity of opinion among planters, and more between them and the trade. The latter petitioned the last Legislature to abolish state inspection of tobacco as a useless and oppressive burden to production, but the planters in many of the largest tobacco producing counties in the State held meetings, and petitioned for the retention of the law, with such changes and modifications as seemed to them desirable. The Convention, we presume, is to decide upon these, and to unite in petitioning for such changes and reforms in the law as are desirable. The decision of the Convention, if harmonious, will be potential for good.

Let county meetings be held to appoint delegates, and where these cannot be held, district meetings and the Granges should select.

We had the promise of an article on this subject from Maj. R. L. Ragland, who understands the subject probably better than any man in Virginia, having fought this question of tobacco inspection for the past two years in the Senate in the interest of the planters, but he informs us that sickness has prevented him from doing so. We hope, however, that he will be able to attend the meeting at Burkeville, that the Convention may have the benefit of his experience and counsels. No one has more zealously and efficiently worked for the interest of the tobacco grower than has Maj. Ragland.

TEN GOOD HINTS.

The following pithy code of newspaper by-laws is the best we have ever seen :

1. Be brief; this is the age of telegrams and short-hand.
2. Be pointed; don't write all around a subject without hitting it.
3. State facts; don't stop to moralize; it's drowsy business; let the reader do his own dreaming.
4. Eschew prefaces; plunge at once into your subject, like a swimmer in cold water.
5. If you have written a sentence that you think particularly fine, draw your pen through it; a pet child is always the worst in the family.

6. Condense; make sure you really have an idea, and then record it in the shortest possible terms.
7. When your article is complete, strike out nine-tenths of the adjectives; the English is a strong language, but won't bear too much "reducing."
8. Avoid all high-flown language; never use stilts when legs will do as well.
9. Make your sentences short; every period is a milestone, at which the reader may halt and rest himself.
10. Write legibly.

GEORGE WATT.

GEORGE WATT, the plow-maker of Richmond, (whose likeness forms the frontispiece for this number,) was born August 11th, 1815, (at *Springfield Farm*, the battle-ground of the 27th of June, 1862), in Hanover county, Virginia. His father, Hugh Watt, was of Scotch-Irish descent, and a lineal relative of *James Watt*, who first brought steam into practical use. His father was a farmer in independent circumstances. His mother was a native of Hanover county, and was a granddaughter of John Austin, to whom the crown made some very extensive grants of land principally in that county.

George was the youngest of five children. At the age of fifteen he was taken from school and put with Wm. Smythe, an extensive dealer in china-ware in Richmond. But he was not pleased with this vocation and returned to the farm at the end of six months. After remaining with his father six or eight months, he was apprenticed to his brother-in-law, John Haw, of Hanover county, to learn mechanics. Mr. Haw was engaged in building machinery of all kinds, and houses, and also had a large foundry and blacksmith shop. George took a general interest in every department of business, and after five years of diligent service, asked to be released from his remaining time, which request was granted cheerfully.

He then went West and afterwards South, where he engaged in business with his brother.

In 1840, he finally went into the business of manufacturing plows.

In 1842, he commenced the manufacture of what has since become famous under the name of the Cuffbrace plow.

In 1843, he moved from Alabama, where he had been living for some time, and having formed a partnership with his brother-in-law, with whom he had served his apprenticeship, he went into the manufacture of plows and building of machinery. They had their factory at Haw's shop in Hanover county.

In January, 1846, he removed to Richmond, and here commences a career so intimately interwoven with the successful manufacture of plows for the use of Virginia and the South, that to write it out minutely would be to give the history of almost every valuable improvement in cast-iron plows for nearly thirty years.

Mr. Watt has, from time to time, made improvements on his plow, which, all combined, make it now, beyond all question, one of the best, if it is not the very best cast-iron plow made.

His progress toward the present perfection, was of course gradual—almost every year saw some improvement made, till in 1867 he made what is now known as the Watt Plow—combining all the excellence of his former inventions, and adding some very valuable improvements.

In 1870, the broad throat improvement was added. There are many peculiari-

ties about the Watt Plow, which distinguish it decidedly from all others, both in the form of different parts and the method of putting them together. The obliqueness of the mould-board, and simple method of regulating the depth and width of furrow, make it not only the lightest running plow, but also the most easily regulated.

It is hardly necessary to enter into a complete description of the plow, for they are in every neighborhood, and farmers can see them for themselves. The points of excellence are cheapness, durability, ease of draught, both to team and plowman, perfect adjustability, either as to depth or width of furrow, freedom from choking, burial of filth and pulverization of soil.

These plows have been introduced everywhere throughout the South, and give entire satisfaction wherever used. Mr. Watt is still actively engaged in their manufacture in partnership with his son-in-law, Manfred Call. The demand for the Watt Plow is steadily and rapidly increasing, and the firm is doing a heavy and lucrative business.

Personally, Mr. Watt is above medium height, with a pleasant, open countenance, upon which good nature and firmness are equally impressed. He is a man of uncommonly strong natural sense; impulsive in his feeling, a firm friend and uncompromising opponent; scrupulously honest in all his dealings, and bitter in his denunciations of all who fail to come up to his high standard of honesty. He is enthusiastic in his business and believes he knows more about plows than any one else—an opinion, by the way, which a very large class of our people heartily endorse. If men are to be judged by the amount of good they do in life, George Watt will rank very high among the honored sons of Virginia.

TO OUR PATRONS.

With zeal, energy, and liberal expenditure in procuring valuable contributions and handsome and useful illustrations, we confidently expect to render the *Planter and Farmer* still more deserving of the liberal patronage that it has received in the past. Virginia and the other Southern States have so many interests in their large territory and varied conditions, that it would be unjust to devote the journal to any one or two to the exclusion of others. The farmer, the planter, the gardeuer, the fruit grower, the stock raiser, the manufacturer, the miner, have all a right to be considered in our table of contents. Of course, no one supposes that any one person is capable of treating all these subjects properly; therefore, we must look for information to those whose thorough education and long experience have been directed to special objects. In this connection, we wish to say that we are always anxious to hear from our readers upon any subject which particularly interests them, believing that when a man is in earnest something can be learned from what he has to say.

We desire to set apart a small portion of the journal to family reading, which shall be carefully guarded against anything objectionable, and which, we hope, will add to its value and make it acceptable to the *whole household*.

We say to our readers, the *Southern Planter and Farmer* is *your* paper as well as ours, and you are all equally interested in its success; and we, therefore, have no hesitation in asking that you will take such steps as will insure it—that is, to pay promptly the small subscription price that is due, to give it your influence in obtaining new subscribers, and the benefit of your experience in any

matters relating to agriculture, horticulture, and kindred pursuits. The single effort of each subscriber could readily double the circulation of the journal, and we promise that our patrons shall have the benefit in full of our increased prosperity. If the 10,000 copies which we send out this month are only circulated among your friends, after you have read them, with a hint that they ought to subscribe, we have not a doubt that our subscription list would be doubled in a few months.

WHO WILL DO LIKEWISE?

The following gentlemen will please accept our thanks for their influence and aid in extending the circulation of the *Planter and Farmer*. It only needs the combined influence and aid of our present subscribers to make the *Planter and Farmer* not only the largest circulated paper in the country, but the best. If the *ten thousand* farmers who will receive this number will only show it to their neighbors, and urge upon them to subscribe, our subscription will, in a month, be doubled. We are indebted to the following gentlemen for the following number of subscribers:

D. L. Stephens, 6; C. H. Jones, 12; D. C. Brady, 5; Wm. Chitwood, 8; J. A. Cunningham, 5; F. A. Luck, 5; M. D. Cowherd, 3; A. Graves, 5; T. J. Adams, 5; T. G. Lumpkin, 5; H. W. Burgwin, 5; Dr. J. T. Dunette, 6; J. W. Whitley, 5; Dr. T. W. Gouldin, 6; J. L. Shelton, 9; L. Sheffield, 5; A. O. Lee, 14; P. T. Woodward, 5; L. S. LaPrade, 5; O. L. Ligon, 5; Abner Fuqua, 5; Thomas J. Adams, 5; W. F. Smith, 10; W. H. Gills, 5; H. M. Stephens, 9; M. H. Bernard, 9; John S. Apperson, 9; James Harris, 6; E. W. Brooking, 18; E. H. Wood, 8; C. B. Coiner, 5; John D. Stone, 5; S. R. Waring, 5; H. C. Bost, 5; W. D. Stone, 6; William M. Blackwell, 5; John A. Brumbaugh, 5; William C. Tate, 7; Robert A. Blackwell, 8; Dr. C. R. Cullen, 12; M. H. Garland, 9; M. Brench, 5; J. W. Schink, 5; George S. Norman, 5; Wm. D. Stone, 6; J. W. Goodman, 11; John Fredick, 5; J. K. Forrer, 5; W. W. Smith, 7; C. H. Moorman, 8; Isaac A. McIrwin, 5; C. H. Chilton, 7; T. A. Hatcher, 5; W. Holman, 8; W. C. Tate, 5; C. M. Adkinson, 5; John W. Peyton, 5; S. R. Moore, 5; W. A. Love, 7; J. M. Rice, 6; J. M. Leftwich, 5; William F. Lockett, 5; E. B. Hilton, 5; Thomas L. Catlett, 7; M. H. Garland, 10; P. H. Adams, 5; J. E. LaPrade, 7; J. W. Chinn, 5; E. B. Spencer, 6; E. C. Wilbourn, 5; P. T. Woodward, 5; J. G. White, 9; H. B. Harnsberger, 5; J. W. Schenk, 7; John J. Ansell, 6; Cyrus Brown, 5; John C. Ward, 5; J. M. Spiller, 6; J. E. Lazenby, 10; W. H. Peyton, 6; John R. Farrer, 5; J. D. Rogers, 6; K. Shumate, 5; Joseph K. Bland, 6; G. Bear, 5; Thomas E. Pullen, 5; George W. Dawson, 9; James T. Woods, 5; Dr. E. T. Adams, 13; F. Sanders, 5; P. J. Kemper, 5; John W. Aiken, 19; C. M. Zeegler, 23; Ro. L. Poindexter, 7; S. G. Bernard, 8; A. W. Abraham, 6; J. T. Cawthorn, 6; H. M. Fowlkes, 5; J. H. Shelton, 7; P. L. Ligon, 7; P. L. Blankenship, 5; L. C. Blankenship, 6; E. M. Quillen, 5; D. E. E. Brady, 6; H. C. Lovitt, 5; W. H. Peyton, 8; Wm. Powell, 9; D. L. Stephens, 5; J. H. Featherstone, 6; A. J. Brown, 5; Thos. T. Arnold, 8; Jas. F. Bland, 6; Thos. F. Rives, 5; Wm. A. Mohler, 5; R. G. Handen, 5; H. L. Blanton, 6; Skinquarter Grange, 7; E. L. Nuckols, 5; R. T. Jeter, 5; L. B. Brown, 5; C. H. Chilton, 7; John F. Walton, 6; T. R. Covington, 5; R. Binford, 11; C. A. Shuman, 10; Putnam Owen, 5; Sharpe Carter, 6; Joseph F. Deans, 15; F. N. Maxey, 5; G. N. Thrift, 5; N. A. Gregory, 7; T. P. Lilly,

5; Jas. K. Smith, 5; W. Haynes, 6; C. S. Morton, 5; J. R. Jones, 5; J. M. Spiller, 6; S. G. Bernard, 5; H. Handley, 5; J. P. Gayle, 5; A. W. Tinsley, 10; H. W. Burgwin, 8; J. C. Arnn, 8, Jonas Hackman, 5; J. A. Logan, 5; W. G. Friend, 11; M. Dent, 5; G. T. Croxton, 5; S. McD. Gold, 5; C. T. Moseley, 5; Geo. F. Beale, 5; A. E. Stark, 7; T. J. Stratton, 6; S. M. Steptoe, 6; W. H. C. Lovett, 5; A. G. Spratley, 5; W. L. Doss, 5; Wm. P. Courtney, 6; John Q. A. Kelly, 5; T. P. Taylor, 5; M. Graybill, 6; R. M. Kirby, 5; Jas. Yancey, Jr., 6; Mr. Bagby, 11; D. S. Tucker, 14; R. G. Haden, 6; Geo. W. Dawson, 7; R. C. Phillips, 5; W. W. St. Clair, 6; W. T. Pugh, 5; P. Smith, 6; S. W. Goulam, 5; Joel L. Preston, 5; John L. Hart, 5; J. W. Johnson, 5; T. H. Massey, 5; S. Carter, 5; Dr. L. W. Carter, 5; G. N. Thrift, 5; F. A. Luck, 13; B. F. Kidd, 7; L. H. Stern, 9; Wm. Holman, 6; Col. J. A. Gibson, 5; C. H. Barron, 5; W. R. Mason, 15; D. M. Burgess, 5; N. M. Tandy, 7; Wm. M. Blackwell, 5; D. C. E. Brady, 7; J. W. Diggs, 6; S. W. Walkup, 6. Total, 1,273.

DR. NICHOLS' PATENT PORTABLE FENCE.

[We are indebted to the proprietors of the *Rural South Carolinian* for the following letter, and the stereotype on page 469. The *Rural Carolinian* is one of the best agricultural journals published North or South. We recommend it to our subscribers as being more than worth its subscription price—\$2 per annum. Ed. P. & F.]

The following letter from Dr. Edgar G. Nichols, of Beaufort, S. C., will explain itself, and, in connection with our frontispiece, answer the questions of numerous correspondents. Those requiring further information can communicate directly with the patentee:

BEAUFORT, S. C., May 14th, 1875.

D. H. Jacques, Esq.:

Dear Sir,—At the request of Mr. Robt. Chisolm I send you to-day, per steamer "Pilot Boy," one of my patent posts for portable fence: also a stereotype of a fence already built.

These posts are seven feet long, weigh sixteen pounds each, are made of wrought iron, and painted with Asphaltum. They are set into the ground two feet a hole of the shape of the bottom part of the post having been made with a crowbar to receive each one; they can be set at the rate of fifty per hour. To fence one acre, forty posts are required: to fence one-fourth acre, twenty. They cost one and one half dollars each; that is, for one quarter acre, thirty dollars. In addition, you want sixty to one hundred and twenty rails, and nothing else—not even a nail. The rails may be poles, three inches diameter, such as are found in most woods, and would cost a farmer next to nothing. But if sawed lumber were preferred, the best size is one and one half by four inches, and twenty feet long. At fifteen dollars per thousand, this, for a cowpen of one-quarter acre, would cost nine dollars. But for a cow, horse, sheep and hog pen, eighteen dollars, because in that case it must be six rails high. So the whole cost cannot be less than thirty dollars, nor more than forty-eight dollars.

The rails will last three or four times as long as in an ordinary fence, because there are no water-holding joints, and the posts will last a lifetime.

A boy of fifteen years can put up the pen alone in two hours, or can take it down and load it alone on a cart, for distant removal.

Respectfully yours,

EDGAR G. NICHOLS.

The headquarters of the National Grange has been removed to Louisville, Ky. Persons desiring to correspond will note the fact.

A VISIT TO "BELMONT STOCK FARM."

Being in Charlottesville a few days since, we called on our friend Maj. S. W. Ficklin, whose fine old mansion is only a few hundred yards from town. This magnificent estate, so familiarly known as the "Belmont Stock Farm," is composed of three tracts, containing over 1,300 acres of land, most of which is well set with old turfs of clover, orchard and timothy grasses.

We have known Maj. F. as a successful breeder of all kinds of pure stock for the past thirteen years, but did not suppose him such a capital farmer until our recent visit. The fact, however, that his son is his active and enterprising manager, may be the explanation of the excellent crops of wheat, corn, and tobacco which we saw rather than the Major, and the credit is likely due to him.

It is of the stock, however, of Belmont Farm of which we wish to speak. Maj. Ficklin raises and keeps nothing but pure short-horn cattle, and has a decided preference for them and their grades to any other. He commenced herding from a purchase of Kentucky cattle, and bought those in '58, and has added more bulls since—some from the best families in Kentucky, and this spring selected some cows and calves at Chicago sales, of the best descents, and has sold probably from eighty to one hundred of both sexes in this time, to stock up the country around with pure bred cattle. He has the Chester White and Berkshire hogs, but his proximity to town has prevented his owning of sheep. His attention to breeding fine horses of the useful type was the result of an early and a lifetime extensive use of them. He has bred from old Black Hawk since 1859, who is now in his twenty-sixth year, but he looks comparatively young. In 1866 he imported from France two Percheron Norman stallions and two mares, and the result is being scattered over the country like his cattle and hogs. He has horse stock of all ages from eighty-five to ninety head. None but Black Hawk above fifteen years old, the rest being mainly under five years. He purchased some thorough-bred horse stock at Alexander's annual sale in Kentucky in 1867, and has added others since; Maj. F. does not breed for the turf, but for all useful purposes only. He has also added three Clydesdale colts and he looks to their rearing, with great interest, as they are very popular in their native heath in Scotland, as the farmer's draught horse.

Maj. F. has some twenty brooded mares—a portion of which he works when without colts—he has Black Hawk and his son Alharian (having sold Granite); the thorough-breds are represented by Florist by imported Australian; he has two imported Percheron Norman stallions, Bienvenue and the Colonel; one three-year old ditto, two two-year old, and two colts of this year, and some half-breds of the last two springs, and a half-bred stallion (Graybeard) that has been used successfully the two last springs in Orange, and the Colonel this year at Winchester.



During our visit to Maj. Ficklin's he rode us over the farm of Mr. B. H. Brennan, who has recently bought the valuable estates of Alexander Rives, G. C. O'Mohumdro, and one hundred acres of T. L. Farrish—in all some twelve hundred acres, which adjoins and compactly forms a splendid estate. We have never seen such magnificent crops of wheat and corn. Mr. Brennan believes in high farming, feeding his land with heavy applications of fertilizers; and by thorough cultivation, he makes his land yield immense crops of corn and wheat, which he thinks will ultimately return him large profits on his investments. Mr. B. has an experienced Virginia manager and uses negro labor, with the best plows, reap-

ers, mowers, and every implement of the best and most durable kind, gotten, as far as practicable, from Harris's Charlottesville machine shops, or through him from the best makers. He sceeded upwards of three hundred bushels Fultz wheat last fall, one and a half bushels per acre, on land first plowed in May with three horses, in August harrowed and rolled with heavy clod-crushers; again plowed with four-horse plows and harrowed, and towards seeding time sowed broadcast five hundred pounds of Lister's Raw bone and three hundred pounds of plaster, and harrowed or plowed in, and the first week of October put in the wheat with about one hundred and seventy-five pounds Guanape guano, and rolled the land with four-horse rollers. The parts of his land that was a corn fallow was cleared of the corn, thoroughly plowed, harrowed, clod-crushed, and finished like the other land, and finished in the last week of October; and it was the first to be ready for the scythes and three Champion reapers. The ground having been cleared of all stone and obstacles, they worked to perfection. The heavy fertilization made the crop even, uniform and exact, and the straw, like the crop generally this year, very short. The reapers cut within a few inches of the ground, and the grass and surface looked quite lawn-like. The crop is variously estimated at from twenty to thirty bushels per acre, and the quality superb. Mr. B. tried some dozen quarters of acres with various opposition fertilizers worked into the soil, and the drill sceeded over the whole alike, the lines being marked by stakes, and the results showed plainly; but there was no separate measurement of yield. Mr. B. is grading and paving his farm road, and improving his farm by finishing up to grass each year as he goes. He has a field of one hundred acres in corn, on which he sowed by plaster sowers ten tons of Turner's Excelsior, and the promise is magnificent; whilst a fine field of creek bottom promises a grand crop.

So far Mr. B. has not attempted to raise much stock, though he has of Mr. F.'s stock of Percheron three half-bred colts of this year, and will doubtless at the proper time show his talents in this direction. Albemarle is fortunate in having such an additional good farmer and citizen.

Mr. James Leigh Jones writes:

"The experiment I made in regard to the destruction of the potato-bug was as follows: I made a decoction of tobacco, and sprinkled the liquid when cool uniformly over the vines. This was done with just such a sprinkler as gardeners generally use. I made the decoction as strong as possible, and then used it quite profusely over the plants. I presume tobacco stems could be used quite as effectually as the pure leaf, though I used leaf. The effect is intoxication and a desertion of the vines. The best time to sprinkle the vines is late in the afternoon, when evaporation is less rapid."

 To any one who will send us a club of *five* subscribers and \$5 between the 1st of August and 1st of October next, we will send all the back Nos. of this year, from January to July, free, in consideration of their effort in our behalf. 

A. M. Bowman, President of the Augusta Fair, advertises his Shorthorn Berkshire hogs and chickens in this issue. We doubt whether there is a breeder in Virginia who has better stock, or who is more thoroughly reliable than Mr. Bowman. He has a large number of Shorthorns, Berkshire hogs, and dark Brahmas for sale at a low price. Write to him for his catalogue.

Mr. Alfred Gerard, a large and intelligent farmer of Amelia county, Va., says, "If I had seen your two articles as published in the *Planter and Farmer* a few months since, on 'Fifty Years' Farming,' by Hill Carter, and 'On the Value of the Southern Pea,' by Edmund Ruffin, three years ago, I believe I would have saved \$10,000 in my farming operations." Mr. G. used 40 tons of fertilizers on his present crop of wheat. We hope he will give our readers his views on the same for our September No.

The Executive Committee of the Virginia State Agricultural Society meets on the 10th of the present month at the Buffalo Springs to make their final arrangements for the approaching Fair. The meeting of the Committee has usually been, at this season of the year, at the Montgomery and Greenbrier White Sulphur Springs, but we are glad to see that the *Southside* has just as attractive Springs as our Piedmont section for the representatives of our agricultural interest. The following gentlemen forms the Executive Committee: Col. W. C. Knight, Richmond; Dr. Wm. T. Walker, Goochland; Major A. H. Drewry, Charles City; Col. R. Harrison, Cumberland; Wm. A. Burke, Staunton; John T. Cowan, Montgomery; Col. J. D. H. Ross, Lexington; R. W. N. Noland, Loudoun; S. W. Ficklin, Albemarle; James Newman, Orange; Dr. S. P. Moore, Richmond; John D. Rogers, King George; Major Wm. T. Sutherlin, Dunville; Robert Beverly, Fauquier; S. S. Bradford, Culpeper; Dr. Monro Bannister, Culpeper; Prof. M. G. Ellzey, Blacksburg; Gen. G. S. Meem, Sheandoah; John Dodson, Dinwiddie.

The Boston (Mass.) *Journal of Chemistry* is the best journal of the kind published in this country. It is devoted to the sciences, arts, agriculture and medicine. Price \$1 per annum.

CINCHO-QUININE has gained the reputation of being superior to the sulphate of quinine, and is much cheaper. The manufacturers have certificates from the most reliable physicians all over the country certifying to its efficiency. Read advertisement on cover page.

We call attention to the advertisement of Mr. S. D. Atkinson, of Manchester, Va., who is now making large quantities of drain tile of all sizes. We have used large numbers of them, and find that they are of the best quality, and sold at reasonable prices—much cheaper than sold by any other manufacturer we know of. We advise such of our readers as wish them to write to Mr. Atkinson on the subject.

THE OLD WHITE.—Read the advertisement, in another column, of the Greenbrier White Sulphur Springs. Colonel Peyton has put down his charges for September to two dollars per day. This will enable hundreds to avail themselves of the benefits which that wonderful water bestows. Try the old White this summer. There is no place in the country which is equal to it.

SHORT-HORN CATTLE

—AND—

BERKSHIRE SWINE.

The undersigned offers for sale

BULLS, COWS AND CALVES,

Also, **BERSKSHIRE SWINE** of all Ages.

Amongst my Short-Horns will be found representatives of some of the most popular families of the day: such as Craggs, (pure Bates,) Louans, Rosamonds, Ianthas, Mary Anns, &c., &c., and at the head of the herd stands the high-bred Bates-Rose of Sharon Bull 3,555, Earl of Weldon 14,175, by the 2d Earl of Oxford 6,708; dam, Rose Bud 8th by the 13th Duke of Airdre 5,535; grand dam, Rose Bud 4th by Airdre 2,478, &c., &c.

My Berkshires are all either imported from England or bred direct from imported sire and dam, and are second to none in America. My sow, "CARLOTTA," took First Prize at the Virginia State Fair in 1874, over T. S. Cooper's fine sow, "ROYAL BEAUTY," which had, only six weeks before, taken the prize at the Royal Show, in England. My imported "Hillhurst Rose," has been shown in New Jersey, Pennsylvania, Maryland and Virginia, and *has never been beaten.*

Prices to suit the times. Young Bulls especially, will be sold at prices within the reach of our Southern farmers.

A few Dark Brahma fowls kept—price \$6 per pair; \$8 per trio.

Address,

A. M. BOWMAN,

aug—tf

"Bellevue," near Waynesboro', Augusta Co., Va.

THE WATT PLOW,

THE BEST TURNING AND CULTIVATING PLOW MADE.



Warranted to be as represented, or to be returned if, on trial, it does not come up to the standard claimed.

The "Watt" combines *Ease of Draught, Ease to Plowman, Thoroughness of Work, Simplicity and Durability*, in a degree not possessed by any other Plow yet made, and

CANNOT BE CHOKED IN ANY LAND, HOWEVER FOUL.

We have recently invented, as an attachment to our One-horse Plows,

A COTTON SWEEP

(With reversible steel wings),

And a Cast Point. It will clean in any soil, is durable, and of very light draught. Several have been placed in the hands of planters for trial, who, after testing them with others, pronounced them the best they have ever worked. These points can be as easily replaced when worn out as a plow point can, and at a small cost. This Sweep was awarded First Premiums at S. C. State Fair and Orangeburg, S. C., 1874.

In addition to the Sweep Attachment, the A and B Plow has the Reversible Steel Scraper (D) for cotton, tobacco and all crops. There are also seven different sizes of mould-boards—from the largest turner (A) to the row-opener, cultivator and sub-soiler (B); also the pea-nut digger (C). With these different attachments, the Plow has no equal as a Turning Plow, Subsoiler, Cultivator, Row-opener, Scraper, Sweep and Peanut Digger. It may be said to be all that the planter or trucker wants, and is the most perfect implement made in every essential. With it an entire crop can be cultivated without the use of any other implement.

We manufacture the Watt Plow of all sizes, from one to four horses
ght and left hand. We guarantee them to work in any land, from the
ghtest sandy soil to the heaviest clay, and in clean land or foul. They
in more level, and consequently with more ease than the plows in gen-
eral use.

Having raised the standard and otherwise improved each of the dif-
ferent sizes of the Watt Plow within the past eighteen months (which
oes not conflict with the fitting of the *mould-boards, points or slides* of
ormer ones of same number), whereby a great saving of labor to man
nd team is effected, better and deeper work done, less choking than by
ny other plow, we would be pleased to enjoy the patronage so liberally
estowed by the farmers of this and all the Southern States, as well as
ie North and West, assured that our plows of all sizes are superior to
ny now in use; and if they do not prove so after one week's trial they
ay be returned to us.

All our Plows and their Castings, Harrows, Cultivators, Coulters, &c.,
re made under our own supervision, and are made of none but the best
aterial, and are warranted to be as represented.

CAUTION.

We especially caution makers, sellers and users of plows against in-
fringements on the various patent rights of George Watt, which cover
ie Helve or Standard, Turning and Weeding Mould-Boards, Points
nd Slides—in fact, *every part* of the Plow. Infringements are already
a progress by certain parties, who, seeing the popularity of the Watt
low, are attempting to put on the market their *bogus castings in our
ame*. These castings are of inferior metal and *will not fit* our plows,
nd the farmer naturally attaches the blame to us, thinking they are
enuine. We therefore urge planters, to save themselves from loss, to
btain their castings from us or our agents, and not buy of those who
us deprive us of our rights unjustly and injure themselves.

*In order to do so, see that every piece of casting or point is marked
Patented," with date of same, and by G. Watt.*

We have the *exclusive* right to make these Plows and Castings. Suits
re now pending against infringers, and all parties making or selling
hem of other make will be dealt with to the full extent of the law. A
arty dealing in an infringement is as much liable as the manufacturer
f it.

For a complete description of the Plow and price list, send for Cata-
logue containing testimonials of those who have used it, &c.

WATT & CALL,


Sole Manufacturers,

1402 Franklin Street, Richmond, Va.

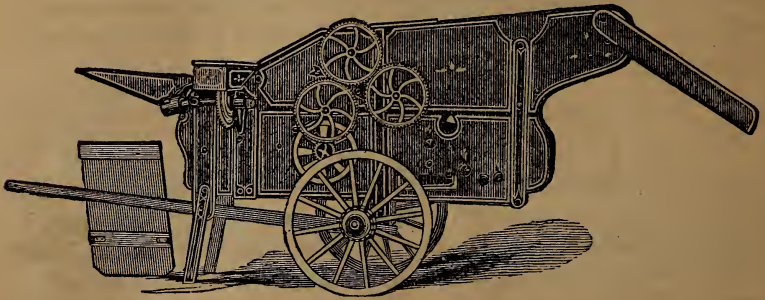
"THE BEST"

KELLER'S
GRAIN, SEED & FERTILIZING DRILL.
H. M. SMITH & CO.,

Agents for Richmond.

 Send For Circular.

GEISER'S
PATENT SELF-REGULATING



Grain Separator, Cleaner and Bagger.

H. M. SMITH & CO.,

Post-office Box No. 8, RICHMOND, VA.

General Agents for Eastern Virginia and the States of
North Carolina, South Carolina and Georgia.

This is the most convenient, portable, and best made THRESHER and CLEANER now in use. It threshes rapidly, and cleans more perfectly than any other pattern. It has a SELF-REGULATING BLAST, which makes the blowing over of Wheat an impossibility.

THE MOUNTED VIRGINIA HORSE POWER,

Is especially adapted to run the Geiser, and the two together make the best threshing outfit in the world. The reports from the Mounted Power are all like the following unsolicited testimony:

CHARLOTTE, N. C., July 24th, 1873.

Messrs. H. M. SMITH & Co.:

Gentlemen,—Mr. J. R. Wollar says of the "Mounted Power," it is all you claim for it; that if you will make and send a Wagon Jack, the thresherman need not lift more than a bushel of wheat during the season; and that sort of work which has been heretofore so *laborious* would become only *play and pastime*. When I hear from the rest I will report.

Very respectfully,

WM. F. COOK.

REBUILT!!

H. M. SMITH & CO.,

MANUFACTURERS OF

FARM MACHINERY & IMPLEMENTS.

TO OUR PATRONS:

Having rebuilt our machine shops, which were destroyed by fire Oct. 1874, and fully equipped them with new and improved machinery and tools, we are better prepared than ever before to supply your wants in our line, and thanking you for past favors, we solicit a continuance of the same, pledging our best endeavors to the satisfactory filling of all orders. Send for a Catalogue.

THE MITCHELL



FARM AND FREIGHT WAGONS,

AND THE

STUDEBAKER FARM WAGONS.

We are the General Agents of these celebrated Wagons, and solicit orders from the trade, and individuals.

PRICES VERY LOW.

ADDRESS

H. M. Smith & Co.,

P. O. Box 8.

RICHMOND, VA.

RICHMOND COLLEGE,

RICHMOND, VA.

*The Session of 1875-76 will open September 22d,
and close 22d June.*

The Institution embraces eight independent schools, under the following

FACULTY:

EDMUND HARRISON, A. M., Professor of Latin.

H. H. HARRIS, M. A., D. D., Professor of Greek.

RODES MASSIE, A. M., Professor of Modern Languages.

J. L. M. CURRY, D. D., LL. D., Prof. of English and Acting Prof. of Philosophy.

E. B. SMITH, M. A., Professor of Mathematics.

C. H. WINSTON, M. A., Professor of Physics.

B. PURYEAR, A. M., Professor of Chemistry.

Expenses per session of nine months, embracing matriculation and tuition fees, fuel, lights and washing, \$118. Good board in messing clubs costs \$10 per month; at the College boarding houses, \$13. About \$90 will be needed on matriculation; \$35 1st February, and the remainder at intervals through the session.

The expenses of a day student per session are \$87.50.

The College Buildings, situated in the most beautiful and healthful portion of the city, just within the corporate limits, with thirteen acres of land attached, are ample for the accommodation of at least two hundred and fifty students.

The Institution offers to the student every facility necessary to his comfort, convenience and success, and is thoroughly equipped in all respects for dispensing liberal education, on terms unusually moderate.

For Catalogues, giving full information in regard to all the departments of the College, address
B. PURYEAR, *Chairman of the Faculty.*

FERTILIZERS!

PACIFIC GUANO AND FLOUR OF RAW BONE,

Undoubtedly the best, cheapest and most popular Fertilizers now offered for the

Wheat and Grass Crops.

A supply of the above standard and popular manures will be kept during the season, to which we ask the attention of farmers.

PURE PERUVIAN GUANO

ALWAYS ON HAND.

For further information and supplies, address,

ALLISON & ADDISON,
Richmond, Va.

COE'S AMMONIATED BONE PHOSPHATE.

Established in 1845.

And has sustained its high reputation for
THIRTY YEARS.

[Letter from Commodore Charles Lowndes.]

Easton, Talbot county, Md., July 16, 1875.

ANDREW COE, ESQ., Baltimore Md.

DEAR SIR :

I applied your Phosphate to wheat, at the rate of 200 pounds to the acre ; the result proved satisfactory ; I deem it a good Fertilizer.

Respectfully,

CHARLES LOWNDES,

[From the Purchasing Agent of Augusta County Grange.]

Staunton, Augusta county, Va., July 17, 1875.

ANDREW COE, ESQ., Baltimore, Md.

I have used your Phosphate for the last five years and it has never failed me ; for one or two years I tried other standard fertilizers, but yours always excelled. Yours I am sure is better adapted to my land, and it has always been kept up to the standard. I shall use it again,

aug—11

W. H. PEYTON.

BELMONT STOCK FARM,

Breeds Thorough-Bred Horses,

PERCHERON NORMAN & BLACK HAWK STOCK,

SHORT-HORN CATTLE,

Chester White & Berkshire Hogs,

AND

DARK AND LIGHT BRAHMA FOWLS

FOR SALE.

S. W. FICKLIN,

Near Charlottesville, Va.

FARMERS AND DEALERS

PURE FINE GROUND BONE,

PURE BONE FLOUR,

PURE DISSOLVED BONE ASH,

Pure Dissolved Raw Bone.

66° Oil Vitroil, German Potash Salts,
Pure Chemicals for making Superphos-
phate at the lowest market price.

Call at R. J BAKER & CO'S.

CHESTNUT GROVE
Stock Farm and Poultry Yards,
McKEAN & HULICH,
EASTON, PENN.

Fine Bred and English Draft Horses, Asiatic Poultry and Fancy Pigeons, Light and Dark Bramas, Buff, Partridge and White Cochins, Antwerps, Carriers, Barbs, Owls, Magpies and Almond Tumblers.

POULTRY took fifteen Society and nine Special Premiums on Fowls and Chicks, and seven on Pigeons at Lehigh Valley Poultry Exhibition, held at Allentown, January, 1875.

FOR SALE Fine Bred and Draft Stallions, Gold Dust and other Colts. Eggs, Chicks and Pigeons in season.

RICHLAND STOCK FARM,

NEAR QUAKERTOWN, PA.

THOMAS L. McKEAN, Proprietor, P. O. Easton, Pennsylvania.

PURE BRED SHORT-HORN CATTLE, JUBILEES,

LOUANS, YOUNG MARY'S, &c.

The above stock has been removed from Chestnut Grove Farm, and on hand and for sale at reasonable prices. Parties wishing to examine the Herd will be met at Quakertown Station, (which is one and a quarter hours ride from Philadelphia, via N. P. R. R.) by writing in advance to the Proprietor, at Easton, Pa.

Catalogues and Circulars upon application.

Aug—tf

Notice to Wheat Growers.

Reduction of Price of

ZELL'S

CELEBRATED

Ammoniated Bone Super Phosphate,

Unrivalled for the wheat crop. For sale by agents and dealers throughout the country.

PRICE, \$45.00 per ton, at Baltimore.

“Dissolved Bone Super Phosphate” supplied to manufacturers and dealers at low figures.

We are prepared to furnish Granges with an “Ammoniated Bone Superphosphate” of a standard quality, adapted to grain crops, at very lowest price.

P. ZELL & SONS, Manufacturers,

Aug—3t

30 South St., Baltimore, Md.

GREAT SALE

—OF—

LIVE STOCK!

THE LARGEST SALE THAT EVER OCCURRED in the Western country, at public auction, embracing nearly three hundred head of highly bred animals, will take place at the Nashville Fair Grounds, adjoining the city of Nashville, Tennessee, August 18th, 1875. The stock will consist of Thoroughbred and Trotting Horses, Short-Horn and other varieties of Cattle, Fancy Sheep and Swine of the different breeds. The thoroughbred horses are the get of such sires as imp. Bonnie Scotland, Brown Dick, Jack Malone, Vandal, Pat Maloy and others. The trotters, the get of Chieftain, Mambrino, Patchen, American Clay, Enfield, Woburn, Alhambra and others. The Short-Horns by the 8th Duke of Thorndale 8,030, Derby 7,800, Duke of Richland 9,940, and other noted bulls. The sheep and swine bred with great care, from recent importations. Those desirous of purchasing first-class animals, either for breeding or track purposes, will do well to embrace this opportunity. Catalogues ready for delivery in June. Address either of the undersigned at Nashville.

JOHN OVERTON, B. F. COCKRILL, M. S. COCKRILL, EWING & WILLIAMS, and others. aug—tf

G. W. ROYSTER.

J. B. LIGHTFOOT, JR.

G. W. ROYSTER & CO.,

Commission Merchants,

RICHMOND, VIRGINIA.

Solicit Consignments of Tobacco, Grain, Flour and Produce Generally

Refer by Special Permission to J. W. LOCKWOOD, Cashier National Bank of Va., Richmond; ISAAC DAVENPORT, Jr., Pres. First National Bank, Richmond.

Grain Bags furnished on application.

LAND FOR SALE.

For Sale one of the finest Estates near the University of Virginia. It will be sold as a whole, or subdivided as may be preferred. Address

GEO. C. GILMER,
University of Va.

[Mr. Gilmer proposes to sell the above land at a very low price. The proximity of these lands to Charlottesville and the University, with its intrinsic worth, makes it one of the most desirable farms in Virginia.—Ed]. Aug—tf

Chester Springs High School,

Six miles of South Boston Depot, Richmond and Danville R. R.

T. OSCAR ROGERS, Principal and Proprietor.

Testimonials from Patrons, Professors of University of Virginia, where the Principal graduated, and from the Professors of three colleges commending the careful preparation of certain young men who are at those Colleges from this school. Charges comparatively very low, viz: \$88 for each term of twenty weeks. Address,

T. OSCAR ROGERS,

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Black Walnut, Halifax county, Va.

NOTICE TO FARMERS!

REDUCTION IN PRICE OF BAUGH'S RAW BONE SUPER PHOSPHATE OF LIME.

STANDARD OF QUALITY STRICTLY MAINTAINED.

While we announce a reduction in the price of our RAW BONE SUPER PHOSPHATE, we would respectfully represent to dealers and farmers that its standard of quality has been strictly maintained. The proportions of soluble and precipitated Phosphoric Acid, Ammonia and Potash, have never been higher than they are in the article we are now selling our customers. This statement we make as a binding guarantee.

PRICE \$46 PER 2000 POUNDS, packed in good strong sacks of 200 pounds each.

BAUGH & SONS.

No. 20 South Delaware Ave., Philadelphia, No. 103 South St., Baltimore, Md.
Aug—1t

THE AMSDEN PEACH again proves the earliest largest and best. Red freestone. Buds safely by mail or Ex. per 100, \$1; 1000 \$8. Also 1 and 1 year old trees. Circular free.

L. C. AMSDEN, Carthage, Mo.

Aug—1t

EPISCOPAL FEMALE INSTITUTE, Winchester, Va. Rev. J. C. Wheat, A. M., Principal, (formerly of Staunton, Va.) For circulars stating terms, &c., address J. C. WHEAT, Winchester, Va. References, The Bishops and Clergy of the Protestant Episcopal Church of Va. Aug—1t

VIRGINIA LANDS.

UPPER JAMES REAL ESTATE AGENCY.
BY WILLIAM HOLMAN,

Cartersville, Va.

Who offers for sale upwards of 20,000 acres of land, lying in one of the most desirable regions of Eastern Virginia.

Catalogues sent on application.

[Mr. Holman is one of the most reliable farmers in the State. Those wishing to buy land should send for his Catalogue].
Aug—tf

The Fruit Recorder and Cottage Gardener

**5 MONTHS
FREE.**

will be sent free 3 months to all who will send us a 3 cent stamp to prepay postage, as law now requires prepayment of postage.

We do not ask any one to subscribe for

our paper until they know what they are to get. It speaks for itself. Price only \$1 per year. Purdy's Small Fruit Instructor is a work of 64 pp. that tells in simple language just how to grow fruits in abundance for home use or market. Price, 25 cents postpaid.

A. M. PURDY, Rochester, N. Y.

For Sale!
PURE JERSEY BULL
"GOLDSTICK."

(519 Herd Register of American Cattle Club.) Dropped July, 1870. Is in fine condition and perfectly gentle. To be had cheap. Pedigree and full particulars on application to

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MILLERS! MILLERS!!

A rare chance to buy a No. 1 Merchant Mill with Saw Mill attached, immediately on the Valley Railroad 2½ miles from Harrisonburg, Rockingham county, in the very heart of the Shenandoah valley of Virginia. Located in a large wheat-growing region, and complete in all of its appointments. This Mill offers an opportunity rarely met with to those desiring to purchase Mill property.

Full information will be furnished on application to

Rev. D. H. LANDIS,

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P. O. Box 53, Harrisonburg, Va.

PERUVIAN GUANO.

Until further notice, Peruvian Guano, guaranteed to contain 10 per cent. of Ammonia, will be sold by the Undersigned or their Agents, in lots of not less than Ten Tons, at SIXTY DOLLARS CURRENCY per Ton of 2240 pounds, *full weight at the time of delivery.*

A liberal discount will be made to dealers or others on the entire amount bought during the Spring or Autumn seasons.

ROBSON, HURTADO & CO.,

Agents of the Peruvian Government.
July 1st, 1875. *New York.*

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One square, 10 lines or less, one insertion.....	\$2 00
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FRESH GARDEN and FIELD SEED

At the old stand of Palmer & Turpin,
1526 Main street, Richmond,

Orchard Grass,
Timothy, Herds, Clover,
Kentucky Blue Grass.

Send for Catalogue.

feb—tf

W. H. TURPIN.

White Sulphur Springs,

WEST VIRGINIA,

Famous for its Alterative Waters and fashionable company, is open, and the following schedule of prices adopted:

FOR JULY AND AUGUST.

Monthly..... \$2 85 per day.

Weekly..... 3 00 per day.

FOR SEPTEMBER AND OCTOBER.

Monthly..... \$2 00 per day.

Weekly .. 2 50 per day.

Important and expensive improvements have been made in Building and Lodging accommodation, including new Spring Beds, &c.

Descriptive pamphlets obtained of Messrs. Purcell, Ladd & Co., Richmond, Va.

aug—tf

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R. SINCLAIR & CO.,

MANUFACTURERS OF

AGRICULTURAL IMPLEMENTS AND MACHINERY,

ALSO, GROWERS AND IMPORTERS OF

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Dealers in FRUIT TREES and PLANTS

Would call the special attention of our friends and customers to the following first-class Machinery and Implements, which we guarantee to be equal to any article of the kind made in this country, being all of our own manufacture.

We name in part, such machines as are required by the Farmer and Planter for the Winter and Spring seasons, viz: **SINCLAIR'S PATENT MASTICATOR**, of which we make four sizes, viz: Hand, Steam and Horse Power.

Sinclair's Patent Screw Propeller, Hay, Straw and Fodder Cutters, of which we make four sizes, viz. Light Hand Power, Hand Power, several sizes, and Horse Power three sizes. All of the above-named Cutters are our own Patents and Manufacture, and are such as we can recommend.

Reading's Patent Horse-Power Corn Sheller, with Fan Attachment.
" " " Sheller, plain.

Double Spout Hand or Power Sheller **Single Spout Shellers**—
all kinds.

Corn and Cob Mills, Grist Mills, for Farm and Plantation use.
WHEAT AND CORN FANNING MILLS.

"Anderson's" Agricultural Steamer, for preparing feed for Stock.
The best in use.

Threshers and Separators—different kinds and sizes.

Horse Powers, all sizes and patterns.

Ox-Yokes and Bows, Horse Power Road Scrapers, Hay and Straw Presses.

Plows, different kinds and sizes, Harrows, Cultivators, and all kinds of Farming and Horticultural Tools. Address,

Reply **R. SINCLAIR & CO., 62 Light Street, Baltimore, Md.**

IMPROVE YOUR STOCK.

FOR SALE—Alderney and Durham Cattle. Cotswold and Shropshire Lambs, and Berkshire Swine.

PREMIUM ALDERNEY BULL "EZRA"

three years old. Sire Imp. Hannibal (618); Dam Lily (500). Price \$100.

PREMIUM ALDERNEY BULL "GOLD DUST" two years old. Sire Imp. Southampton (117); Dam California (344). Price \$80.

ALDERNEY BULL CHATHAM,

eighteen months old; now fit for service. Sire Sudbrook (1262); Dam Imp. Rose Harebell (3243); solid color, black points Price \$80.

ALDERNEY BULL CALF ACCIDENT,

three months old. Sire Saladin (447); Dam Minerva (341); one of the best Jersey cows in the State Price \$50.

All the above are from Herd-Book Stock, and can be entered in next volume of Herd Book.

HERDBOOK ALDERNEY BULL SUDBROOK (1262),

nine years old; bred by J. Howard McHenry; one of the finest bulls in the State. Price \$100.

PREMIUM ALDERNEY BULL HANNIBAL

four years old. Sire Imp. Hannibal (618); Dam pure Alderney Cow, but not registered; took 1st Premium State Fair 1873. Price \$80.

DURHAM BULL STONEWALL,

bred by James Gowen of Pennsylvania, roan color, of fine size, and splendid form. Price \$100 worth twice the money.

TWO DURHAM CALVES (Heifer and Bull),

four months old, roan color. Price \$30 each.

COTSWOLD AND SHROPSHIRE LAMBS,

at from \$10 to \$15 each.

BERKSHIRE PIGS,

from best stock in the State. Price \$8 single pig, or \$15 per pair.

The above prices are one-fourth less than Northern prices for such stock. Address

A. P. ROWE,

Fredericksburg, Virginia.

The AYRES TRUSS is the best I have ever seen for Hernia in its various forms, and heartily recommend it to the profession.—HUNTER MCGUIRE, M. D., Prof. Surg. Med College of Va.

Send for Descriptive Circular to



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The Inventor refers by special permission to
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 FRANK H. HAMILTON, M. D., L. L. D., late Professor of Surgery, Bellevue Hospital Medical College, New York.

J. L. CABELL, M. D., Professor of Physiology and Surgery, University of Va.

ISAIAH H. WHITE, M. D., Demonstrator of Anatomy, Med. Col. of Va.

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O. F. MANSON, M. D., Prof. Physiology and Pathology, Med. Col. of Va.

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LONDON B. EDWARDS, M. D., Editor Va. Medical Monthly, Richmond, Va.

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“EUREKA”

Ammoniated Superphosphate of Lime,

MANUFACTURED BY

The Atlantic and Virginia Fertilizing Company,
 Near ORIENT, L. I.,

Always proves to be the best fertilizer when *accurately tested*, i. e. by the application of equal values, by the side of any other, whether on *tobacco, wheat, corn, cotton, grass or vegetables*.

See the report of Mr. A. M. Bowman, President of the Baldwin Augusta Agricultural Society, to the Virginia State Agricultural Society, published in this number of the *Planter and Farmer*, and note the fact that the “Eureka” is not only much the best of the six fertilizers he tried, but that it was also the cheapest, and bear in mind that at the time he tried it he did not even know who was manufacturing it: and followed his example in ascertaining what is the *best* and also in letting the farmer know which is the best. The value of accurate experiments, and the purchase from reliable manufacturers, cannot be overestimated.

WM. G. CRENSHAW, Pres. FRANK G. RUFFIN, Supt. State of Va.

If there is no agent for the sale of “Eureka” in your immediate neighborhood, write to any of the following General Agents: W. N. RUFFIN, Richmond, Va.; JNO. ARRINGTON & SONS, Petersburg, Va.; HOOE & JOHNSTON, Alexandria, Va.; JOSHUA WALKER, Baltimore, Md.; WILLIAMS & MURCHISON, Wilmington, N. C.; W. C. COURTNEY & CO., Charleston, S. C.; J. W. LATHROP & CO., Savannah, Ga.

Send for Circular.

BOTTOM TOUCHED.

Dry Goods at Lower Prices than Ever.

Money saved by buying your Dry Goods from Levy Brothers,

Who have made large purchases since the recent decline.

Fancy Grenadines at $8\frac{1}{2}$, 10 and $12\frac{1}{2}$ c. per yard, worth $16\frac{3}{4}$, 20 and 25c.; Rich Styles Fancy Grenadines at $16\frac{3}{4}$, 20, 25, 30 and 35c., worth from 25 to 50c.;

Black Grenadines in all qualities from $12\frac{1}{2}$ c. up to \$2.25 per yard—this embraces not only the cheapest, but best assorted stock ever offered in this city;

Ecreu Linen Tussore Suiting at $8\frac{1}{2}$ c. per yard, worth $16\frac{3}{4}$ c.; at $12\frac{1}{2}$ c., would be a bargain at 25c.; at $16\frac{3}{4}$ c., worth 30c.—these goods must be seen to be appreciated; Silk-Warp Japanese Stripes and Plaids at 30c. per yard, worth 50c.;

Japanese Cloth at $12\frac{1}{2}$ c., worth 25c.; Wash Poplins, best goods manufactured, at $12\frac{1}{2}$ c. and 15c., worth $16\frac{3}{4}$ and 25c.; Debeiges, at 25, 30, 35, 40 and 50c. These goods can be had in all the new shades;

New style Plaid Dress Goods from 25 to 50c. per yard—a reduction of from twenty-five to fifty per cent. has been made in these goods; Fast-Colored Lawns at $8\frac{1}{2}$, 10, $16\frac{3}{4}$, 20, 25, 30, $37\frac{1}{2}$ and 50c.;

Also, at the lowest prices, Pongees, Mohairs, Japanese Silks, Jaconets, Cambrics, Linen Lawns, and all other styles of fashionable dress goods; Black Alpaccas at 25, 30, 35, 40, 45, 50, 60, 75, 85, 90c., \$1 and \$1.25;

Australian Crepe at 50, 60 and 75c., worth 65c., 75c. and \$1; Yard-wide Printed Percales and Cambrics at $12\frac{1}{2}$ and $16\frac{3}{4}$ c. per yard—regular prices, $16\frac{3}{4}$ and 25c.;

Victoria Lawns at $16\frac{3}{4}$, 20, 25 and 30c.; also, Piques at $16\frac{3}{4}$, 20, 25, 30, 35 and 40c.—all remarkably cheap; Swiss Muslins from $12\frac{1}{2}$ c. up to 50c. per yard—all very cheap;

Checked and Striped Nainsook Muslins, Checked and Striped Swiss Muslins; Corded, Striped and Figured Piques—all at extraordinary bargains;

Lonsdale Cambric, first quality, one yard wide, at $16\frac{3}{4}$ per yard; Knight's Cambric, 33 inches wide, at 10c., would be a bargain at $12\frac{1}{2}$ c.;

Utica Sheeting, 10-4 wide, in remnants from two and a half up to ten yards, at 40c. per yard; 50c. is the regular price everywhere; Remnants of Dress Goods of every description to be sold at less than half value;

Black and Colored Silks at lower prices and in greater variety than at any other establishment in this State; Embroidered Curtain-Muslin, one yard wide, at 25c., worth $37\frac{1}{2}$ c.;

Hamburgh Net for Curtains, at 20, 25, 30, 35, 40, 50c., and up to \$1 per yard;

Hamburgh Lace Curtains from \$4 to \$30 per set for two windows; Hamburgh

Lace Lambrequins, from \$2 50 up to \$5 a pair—all very cheap and desirable;

Window-Shades in great variety, among which will be found an exact imitation of lace shades, now so fashionable: A large assortment of Curtain Fixtures, such as Cornices, Bands, Loops and Hooks;

Black, White and Ecreu Hamburgh Nets, at a reduction of 50c.; A full assortment of Laces suitable for trimming; A large assortment of Silk Neck Scarfs and Ties; Also, Black Lace Scarfs and White Lace and Muslin Scarfs;

Ready-Made Dresses for ladies in all of the latest styles, from \$3 to \$25; A full assortment of Under-Garments at extraordinary low prices;; A large assortment of Ducks and Drillings for boys' and men's wear;

Sash Ribbons at 25c., 30c., 35c., 40c. and 50c., and up to \$1.25 per yard—all extraordinarily cheap; A full assortment of Ribbons from a half-inch up to seven inches at the lowest prices; Gauze Shirts for men and women—some as low as 40c. for men;

Bustles in all the new styles; also, Hoop Skirts and Balmorals; Matting, Oil-Cloths, Rugs, Carpets, Mats and Hassoeks; Rubber, Jet and Gold Plated Jewelry in great variety; Summer Shawls, Lace Points and Jackets;

Black Grenadine Shawls at \$3, worth \$4; Laces and Embroideries in endless variety at low prices; Goodrich & Barnum's Tuckers at 75c.; Machine Needles at 4 and 5c.; Machine Oil in large bottles at 15c.;

Clark's and Coat's Spool Cotton at 70c. per dozen;
And thousands of other articles not enumerated in this advertisement.

Prompt attention to orders.

july—tf

LEVY BROTHERS, *Richmond, Va.*

ESTABLISHED 1839.

TO FARMERS, PLANTERS and GARDENERS

PURE
Ground Bone,

MANUFACTURED AND FOR SALE BY

JOHN BULLOCK & SON,

Factory: Washington Road, Baltimore, Md.

Store: No. 61 S. Gay Street, Baltimore, Md.

P. O. Box 636.

For more than thirty years we have been engaged in the manufacture of "Pure Ground Bone", our crude stock being gathered daily from the butchers here, with whom we have yearly contracts. We have completed our new factory, and with the addition of the latest and most approved machinery, will be able to fill all orders sent to us at short notice and guarantee at all times to the purchaser a first-class article at the lowest market price.

Respectfully

JOHN BULLOCK & SON.

S. L. MERCHANT & CO.,

76 SOUTH ST.,

(Entrance on Maiden Lane,)

NEW YORK CITY.

IMPORTERS OF

ENGLISH, FRENCH AND GERMAN

PORTLAND CEMENT

OF THE FOLLOWING BRANDS:

Portl'd Cement { J. B. WHITE & BROTHERS,
KNIGHT, BEVAN & STURGE,
BURHAM CEMENT CO.,
BROOKS, SHOOBRIDGE & CO.,
PETERS BROTHERS,
GILLINGHAM CEMENT CO.,
LONGUETY & CO.

Portl'd Cement { FRANCIS & CO.,
HOLLICK & CO.,
EASTWOOD & CO.,
REBINGTON,
TINGUEY,
LEVETT & CO.,
DYCKERHOFF.

Marble and Interior Decoration—VARIOUS KINDS.

KEENE'S (Superfine and Coarse.) PARIAN CEMENT do.
DYCKERHOFF'S (Black Cement.) MARTIN'S do.

ROMAN CEMENT (English & Scotch) SELLARS' Gas Cement.

The attention of Architects, Engineers, Owners, Builders, Gas and Water Companies, is respectfully called to these importations.

Remit 6c. postage stamp for Treatise on Portland Cement. July



ONE THOUSAND transplanted Arbor Vitæ 4 to 8 inches high, DELIVERED free to any part of the United States for only FIFTEEN DOLLARS.

500 ARBOR VITÆ (transplanted) 4 to 8 inches high, free to any part of the United States for only TEN DOLLARS.

15 ARBOR VITÆ and 10 WEEPING SPRUCE, nice 10-inch plants, delivered free to any part of the United States for only ONE DOLLAR. EVERGREENS—how, when, and where to plant—mailed free for stamp.

Remit money by draft, registered letter, or money order on Portland

Address, WM. MORTON & SON,
ap—tf Allen's Corner, "Cumberland Co.," Maine

Steam Engines and other Machinery For Sale.



In addition to a full line of New Engines, Saw Mills, and other Machinery of our own improved build, which we keep constantly on hand or build to order, we have now For Sale the following Second-Hand Machinery, all in perfect order, which we will sell at very low figures, viz:

Double-Hoisting Engines, 30-horse power, with drums and other hoisting gear, complete.

4-horse Stationary Engines, good as new;

Flue-Boiler 26 feet long, 42 inches diameter, with 2 flues, 14 inches diameter, iron front and other fittings complete;

150-horse power Stationary Engine; Tubular Boilers, 50-horse power each; 30-horse power Stationary Engines; 8-horse Portable Engine, as good as new; of our own make; 16-horse Stationary Engine with new vertical boiler; Several steam Pumps and Fan Blowers of various sizes; Engines for threshing, grinding and ginning, mounted on wheel or not, as may be preferred by the purchaser; Repair Work Solicited.

WM. E. TANNER & CO.,
Metropolitan Works, Richmond, Va



THE
VIRGINIA
WINE
AND
CIDER MILL

Is superior to any MILL now made, and more sold annually in this market than of all other kinds combined. It does not grate, but thoroughly crushes every fruit cell, insuring all cider the apples will yield.

Send for Catalogue.

gy-1y

CHAS. T. PALMER,
1523 Main Street, Richmond, Va.

Farmers who are short of Hay can now sow

Hungarian and Millet Seed,

Which produce a very Fine Crop, also,

SEED BUCKWHEAT.

FOR SALE BY

C. B. ROGERS,

133 Market Street, PHILADELPHIA, PA.

FALL STYLES, 1874.

CHARLOTTESVILLE WOOLEN MILLS SAMPLE CARDS

Are now ready for mailing. Our assortment embraces

TWENTY-FOUR PATTERNS.

Merchants desiring samples, will please address,

CHARLOTTESVILLE WOOLEN MILLS,
CHARLOTTESVILLE, VA.

SOLUBLE PACIFIC GUANO,

FOR TOBACCO, CORN AND OTHER CROPS.

After ten years' continuous use, throughout Virginia and the South, Soluble Pacific Guano has acquired a reputation for reliability equal to that formerly enjoyed by the Peruvian Guano, and the quantity used annually exceeds that of any other fertilizer.

It has been the aim of all connected with this Guano to produce the best possible fertilizer at the lowest possible cost, and we claim that the unusual resources and facilities of the manufacturers have enabled them to approach this more nearly than has been done in any other fertilizer with which we are acquainted. Those who have been using it unite with us in the opinion, that by its use the consumer gets

THE GREATEST BENEFIT FROM THE SMALLEST OUTLAY.

We offer it with great confidence for use on the Tobacco and other crops to be grown in 1875 with the assurance that it is, in all respects, equal to what it has been in the past.

PURE PERUVIAN GUANO,

AS IMPORTED.

We have a full supply of **No. 1 Guanape Peruvian Guano**, from the Government Agent in New York, selected from one of the finest cargoes ever imported. It is dry and in beautiful order, and contains within a fraction of **13 per cent. of Ammonia**, which is within two per cent. of what the old Chinchu Peruvian used to contain—in fact, it would be difficult to tell one from the other.

We offer these standard and thoroughly tested fertilizers for Tobacco, Corn, and all Spring Crops, and are prepared to sell them at such prices as will make it to the interest of consumers and dealers to purchase their supplies of us instead of sending their orders to New York, or elsewhere.

For further information and supplies, address,

ALLISON & ADDISON,

mar—tf

Seed and Guano Merchants, Richmond, Va

ST. JAMES HOTEL, RICHMOND, VA.

Pleasantly located on Twelfth Street, facing Bank Street and the Capitol Square. In the centre of the business portion of the city, within one square of the Post Office and Custom House, it is, by its retired location opposite the southeast corner of the beautiful park surrounding the Capitol of Virginia, the most quiet hotel in Richmond.

The proprietor having had a life long experience in hotel business—first at the Everett House, New York, and afterwards as proprietor of the Spotswood Hotel, Richmond, in its best days—and now assisted by MR. JOHN P. BALLARD, the popular veteran hotel-keeper of Virginia, assures visitors of the ST. JAMES that no effort on his part will be spared to make them comfortable and to keep the house in first-class style. Coaches will attend the arrival of all trains. Elegant carriages are at all times at the service of the traveling public.

june

T. W. HOENNIGER, Proprietor.

THE GREEN SPRINGS ACADEMY, LOUISA COUNTY, VA.

This pleasantly situated private School for Boys and Young Men preparing for College, will resume recitations October 1st, 1875.

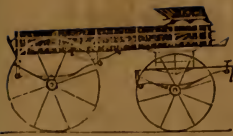
Persons wishing to send their sons to school are requested to apply to us at once. We wish to have only a small school of some twenty-five scholars—one that can be well taught.

For reference, apply to editors of "Religious Herald" or to Professors of Richmond College. Address

C. R. DICKINSON & SON,

jjy-3t

Trevilian's, Louisa County, C. & O. R. R., Va.



W. C. SMITH,

MANUFACTURER OF

SPRING WAGONS, BUGGIES, &c



I have on hand and make to order on short notice. Carriages, Buggies and Spring Wagons, with special reference to the wants of farmers. Light running and strong, of any desired capacity. Workmanship and material guaranteed. Prices lower than the same quality of work can be bought at in this or any other city. Orders solicited. Letters of inquiry promptly answered.

Repairing promptly and reasonably done.

W. C. SMITH,

308 Fifth Street, Richmond, Va.

my-6m

WAGONS! WAGONS!

The subscriber has on hand

WAGONS AND CARTS

of various descriptions, that he wishes to dispose of on very moderate terms, and is still manufacturing others, and solicits a call from all in want of any article in his line, and he guarantees good workmanship, and first-rate material.

A. B. LIPSCOMB,

116 Cary Street, between Adams and Jefferson.

CHESAPEAKE AND OHIO R. R.

On and after SUNDAY, June 13th, 1875, passenger trains will run as follows:

FROM RICHMOND:

Leave Richmond,	9.30 A. M.	9.10 P. M.
Arrive at Gordonsville,	12.45 P. M.	12.30 A. M.
Arrive at Washington,	7.33 P. M.	6.33 A. M.
Arrive at Charlottesville,	1.45 P. M.	1.24 A. M.
Arrive at Lynchburg,	4.50 P. M.	4.50 A. M.
Arrive at Staunton,	4.10 P. M.	3.30 A. M.
Arrive at Goshen,	5.56 P. M.	5.14 A. M.
Arrive at Millboro',	6.17 P. M.	5.36 A. M.
Arrive at Covington,	7.51 P. M.	7.06 A. M.
Arrive at Alleghany,	8.59 P. M.	8.14 A. M.
Arrive at White Sulphur,	9.15 P. M.	8.32 A. M.
Arrive at Hinton,	12.15 A. M.	10.35 A. M.
Arrive at Kanawha Falls,	4.20 A. M.	1.25 P. M.
Arrive at Charleston,	6.15 A. M.	3.25 P. M.
Arrive at Huntington,	8.30 A. M.	5.45 P. M.
Arrive at Cincinnati,		6.00 A. M.

Train leaving Richmond at 9.30 A. M. runs daily, (Sunday excepted) stopping at all regular stations.

Train leaving Richmond 9.10 P. M. runs daily stopping at all regular stations west of Alleghany.

Accommodation train leaves Richmond for Gordonsville and all intermediate stations daily (Sunday excepted), at 4.30 P. M.

Pullman Sleeping Car runs on 9.10 P. M. train between Richmond and White Sulphur.

For further information, rates, &c., apply at 826 Main Street, or at Company's offices.

CONWAY R. HOWARD,

General Passenger and Ticket Agent.

W. M. S. DUNN, Engineer and Sup't Transportation.

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BAUGH'S STANDARD MANURES.

BAUGH & SONS,

High Grade Manure for Tobacco & Grain

BAUGH'S RAW BONE **TRADE MARK** **SUPER-PHOSPHATE OF LIME.**

The old established analysis. Also, Pure and a full line of chemicals.



article sold under a guaranteed Ground Bones, Pure Bone Meal, icals for making super-phos

ap—6t

BAUGH & SONS,
No. 103 South Street, Baltimore, Md.

Massillon Harvester
Buy the Best.
TWO men bind Ten Acres daily. Binders can **SIT** or **STAND.** Address, **EDWIN BAYLISS, Massillon, O.**

WALNUT GROVE FARM.

THOROUGHbred and GRADE JERSEY CATTLE. BERKSHIRE and ESSEX SWINE. BRONZE TURKEYS and BRAHMA FOWLS.

I took 1st premium on Thoroughbreds, (Male and Female,) and 1st premium on Grade Jerseys, also, 1st on Bronze Turkeys at Va. State Agricultural Society, 1874.

Prices moderate—Satisfaction Guaranteed.
Address,

G. JULIAN PRATT,
mar—ly *Waynesboro, Augusta co., Va.*



BLATCHLEY'S

Improved Cucumber Wood Pump is the acknowledged Standard of the market, by popular verdict, the best pump for the least money. Attention is invited to Blatchley's Improved Bracket, the Drop Check Valve, which can be withdrawn without disturbing the joints, and the copper chamber which never cracks, scales or rusts and will last a life time. For Sale by Dealers and the trade generally. In order to be sure that you get Blatchley's Pump, be careful and see that it has my trade mark as above. If you do not know where to buy, descriptive circular, together with the name and address of the agent nearest you, will be promptly furnished by addressing with stamp,

CHAS. G. BLATCHLEY, Manufacturer,
mar 506 Commerce St., Philadelphia, Pa.

TO FARMERS,
Bowen & Mercer's Super Phosphate
REDUCED TO

\$40 for single ton; \$38 for five tons and over; \$35 for ten tons and over..

Warranted Equal to any Manufactured. Send for pamphlet of testimonials,

BOWEN & MERCER,

mar—ly S. Gay Street, Baltimore.

TIN WIRE RINGS.
Will not make a Hog's Nose Sore.
H. W. HILL & CO. Hardware Dealers sell them Ringer, \$1; Tin Rings (100) 60c; Coppered Rings, 50c; Tongs, \$1.25; by mail, post-
SOLE MANUFACTURERS
DECATUR, ILL. paid. Circulars free.

BRINLY PLOWS

BEST AND CHEAPEST IN USE.

Have taken over 300 Premiums at Fairs throughout the South. Send for illustrated Catalogue with Price List, and certificates of planters who use them.



SOLE MANUFACTURERS:
BRINLY, MILES & HARDY
LOUISVILLE, KY.

Thoroughbred Stock for Sale.

I am breeding Thoroughbred Devon Cattle, Poland China, and Essex Hogs, South Down Sheep, &c. Also Light Brahma Fowls, and have for sale several pairs of White and Black Guineas. Persons ordering from me can rely on getting as good stock as any in this country. My herd of Devons are of the most improved strains. They took 7 first premiums at our last Virginia State Fair. For further particulars,

F. W. CHILES,

feb—6m Louisa C. H., Va.

CANCER ! CANCER !!

Attention is called to the great success which has been achieved in the permanent cure of this loathsome disease, by the use of

Bendall's Eureka Cancer Salve.

Hitherto it has baffled the best medical skill, and the poor unfortunates with this leprosy, clinging to their bodies and eating out their vitals, are left to drag out a miserable existence. Testimonials of the most convincing character are accumulating daily, and many heretofore incredulous, are now entirely satisfied as to its inestimable value.

F. H. ROBERTSON & SON, Index-Appel Office, Petersburg, Va., are the General Agents, to whom all letters for information, and orders for Salve should be addressed.

March 17

Stand to your Home Manufactures.
Taxes are not reduced by sending your
money out of the State!



WHEAT FERTILIZER,

PREPARED BY THE

SOUTHERN FERTILIZING COMPANY,
RICHMOND, VA.

This standard Fertilizer is now ready, and arrangements have been made to place it at all convenient shipping points throughout the wheat growing region.

Price \$50 Per Ton.

The Grain Circular issued by this Company will show the standing and prospects of Virginia on the wheat question.

FERTILIZERS.

Soluble Sea Island Guano,

ESPECIALLY PREPARED FOR THE WHEAT CROP.

Ammoniated Alkaline Phosphate,

The Granger's Manure. This Manure has been used by them for the past two years, with great satisfaction.

Bone and Meal Fertilizer.

This article is combined with Potash, and contains all the elements necessary for the growth of plant, and maturity of grain.

BALTIMORE AND TEXAS FERTILIZING COMPANY'S

Flour of Bone and Bone Meal,

From our Extensive Factory at Fulton, Texas.

Ammoniacal Matter,

Of uniform quality, prepared from the flesh of cattle, at our Texas Factory—an ammoniate superior to Peruvian Guano.

Dissolved Bone.

Bone Phosphate dissolved in Sulphuric Acid, containing 13 per cent. of Soluble Phosphoric Acid.

Potash Salts

Of our own importation.

Sulphuric Acid,

And all necessary articles to make a good Fertilizer.

For Sale at

Corner of South and Water Streets, - - BALTIMORE,

R. W. L. RAISIN & CO.