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THE SOUTHERN
PLANTER & FARMER

DEVOTED TO

AGRICULTURE, HORTICULTURE,

AND THE

MINING, MECHANIC, AND HOUSEHOLD ARTS.

NEW SERIES. Vol. II.

CH: B. WILLIAMS, - - EDITOR AND PROPRIETOR.

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CH: B. WILLIAMS, - - - - EDITOR AND PROPRIETOR.
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In the Ploughing Match of the "Border Agricultural Fair" at Danville, on the 8th November, 1867, against all the most improved Ploughs from the North and South, with which it had to compete, and in the presence of hundreds of witnesses, ploughing out a *deep, wide furrow* (turning under a heavy cover of grass, &c., without choking or varying in width or depth) of over one hundred yards in length, *without being guided or held by the ploughman or any one else!* dec

THE SOUTHERN PLANTER & FARMER,

DEVOTED TO

Agriculture, Horticulture and the Mining, Mechanic and Household Arts.

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

CH: B. WILLIAMS, EDITOR AND PROPRIETOR

New Series.

RICHMOND, VA., JANUARY, 1868.

Vol. II---No. 1.

VIRGINIA STATE AGRICULTURAL SOCIETY.

The following minutes of the late general meeting of the above association will inform our readers of what was done on the occasion of the called meeting on the evening of the 12th of December. The prevalence of a storm of rain through the day and of hail and snow through the night defeated the expectation of the officers of the Society that a quorum would be in attendance, and that the long deferred business of the Society with respect to elections, &c., would be attended to. The attendance of members, notwithstanding the inclemency of the weather, was highly gratifying, and gave assurance that, but for the sleet and snow which prevailed during the evening more than a quorum would have been present. The reports were presented for the information of the Society, and informal proceedings were had, the object of which was to inform the Executive Committee of the views and feelings of the members present in regard to several interesting subjects which occupied the attention of the meeting. The general desire expressed for an early re-establishment of our autumnal exhibitions, if found practicable, gave evidence of the high value placed upon them as the means of promoting our industrial and agricultural advancement.

The report of Mr. Ruffin exhibits the principal obstructions to be overcome in the attainment of the object and also shows that the Executive Committee had not overlooked this important subject.

In consequence of the failure of the meeting, the Executive Committee will continue to discharge its functions, provisionally devolving

on them, so long as the Society shall fail to elect their successors. We append the following

PROCEEDINGS:

At a general meeting of the Virginia State Agricultural Society on Thursday evening, the 12th of December, 1867, held at the Spotswood Hotel in pursuance of public notice, the Hon. Willoughby Newton, President, called the meeting to order, and J. Bell Bigger, Esq., was elected assistant secretary.

The assistant secretary then, by request, read the following

ADDRESS OF THE PRESIDENT:

Gentlemen of the Virginia State Agricultural Society:

I am extremely gratified to see once more, assembled in council, so large a number of the members of our Society. Our last meeting, though most agreeable and deeply interesting, was unfortunately so thinly attended, that we were without a constitutional quorum for the transaction of business. For this reason I forbore, in my last address, to bring to the notice of the Society important matters of business that, of necessity, have been long delayed, and which now claim your attention.

The 4th and 5th Sections of the Constitution of the Society provide that:

"1. The officers of the Society shall consist of a President, eight Vice Presidents, and of ten other persons, (all being members of the Society,) to constitute together the Executive Committee, and a Secretary and Treasurer, who shall be one person.

"2. These officers shall be elected annually by separate votes by the members of the Society in general meeting for one year, and till their successors be appointed, and they shall be re-eligible to office, except that from and after the adoption of the Constitution the same person shall not be President of the Society for more than three consecutive years.

"Section V."

"1. The life members and such annual members as shall have paid all their dues to the Society six months previous to the meeting, shall be entitled to vote in the general meetings of the Society.

"2. Two hundred members of the Society shall constitute a quorum."

Under the provisions of the fourth section, the zealous, efficient, and faithful President of the Society, Mr. John R. Edmunds, having served three years from the time of his election, felt constrained to retire from the office, and by the decision of the Executive Com-

mittee its duties devolved on me under the 7th section of the Constitution, which is in the following words :

“The Vice Presidents shall be ex-officio members of the Executive Committee, and shall, in the order of their election, perform the duties of the President in the absence of that officer.”

The proceedings of the Executive Committee, and the correspondence which led to the change in the chief executive officer, will be recorded and published in the Transactions of the Society.

I entered cheerfully upon the discharge of the important and responsible duties of this high office, but with unaffected diffidence of my ability to perform them, in a manner at all satisfactory to the members of the Society, or to the public. Unfortunately, the unsettled condition of the country has rendered it impossible for the most ardent zeal and signal ability to have accomplished anything. We have reason to hope, however, that we are approaching a new era, and should gird our loins and prepare for more vigorous exertion. The Society, should, if possible, resume its control of its own affairs, and give dignity and efficiency to the acts of the President and the Executive Committee by the seal of its approbation. To this end, I cheerfully surrender into the hands of the Society the office that I have provisionally held for two years, hoping that there may be present a constitutional quorum of two hundred, who may without embarrassment, elect a presiding officer, and executive committee that with the prestige of their approbation, may be able to discharge, most efficiently and acceptably, the important duties devolving on them.

The report of the Secretary and Treasurer will give you exact details of the financial condition of the Society. I am happy to inform you, that by the fidelity of our Treasurer, and the vigilance of the Executive Committee, the funds of the Society have been preserved intact, and that we have now a vested capital of 60,750 dollars in Virginia registered bonds of the old issue, 2,800 dollars in new issue, and 4,610 dollars in funded interest, registered bonds, and that we shall have a floating capital on the 1st day of January 1868, of \$1,154 25 net, to be increased by accruing interest up to January, 1869, to the sum of \$3,462 75, all of which we have, under the Constitution, power to appropriate to any objects of the Association deemed desirable.

An anxious desire has been manifested by many members of this Society, and by the public at large, that we should, at some convenient time during next autumn, hold a grand fair and public exhibition. You are already advised of the amount of funds at our com-

mand that may be devoted to such an enterprise, and are most competent to decide, whether in the present disturbed and suffering condition of the people of the Commonwealth, under military rule, such an assemblage is expedient or desirable. I submit these questions to your sound and enlightened discretion, with the simple remark, that for myself, I should greatly prefer to meet the farmers of the Old Dominion with their sons and wives and daughters in a grand assemblage when they shall be no longer subject to military domination in District No. 1; but when Virginia shall be restored to the full dignity of an equal in the Union, and her children be permitted once more to breathe the free and joyous atmosphere of a Sovereign State. But whatever may be your decision, you may rely upon my earnest and cordial co-operation.

A meeting of the Central Society has been called cotemporaneously with this, for the purpose of conferring upon subjects of great interest to both associations. I am sure I need not say that the members of the State Society will receive with pleasure any suggestions coming from so distinguished and patriotic a source. It is proper, however, to remark that the Charter and Constitution of this Society leave us a very limited discretion. It was chartered as a *State institution*, having no local organization, but to be as extensive in its operations and influence as the wide borders of the Commonwealth. We have, therefore, no power to unite with any mere local organization, however much we may sympathise in their objects, or however willing we may be to co-operate in effecting them; and if there should be a collision of interest, either actual or supposed, between any local organization and the *Society of the State*, I hope to be pardoned for saying that the local organization should give way; especially at this time, when all other State institutions have been blotted out, and the Agricultural Society of Virginia remains as almost the only living evidence of the existence of Virginia as a State. I hope, however, that any propositions from the Central Society, may be received by you with the kind and respectful attention so justly due to the worthy and eminent gentlemen who constitute it. In this connection, I think it proper to say, that in my opinion, the meetings and exhibitions of a State Society should be held at the capital of the State; and I feel well assured, from my knowledge of the kindness and liberality of the people of Richmond, that they will at all times gladly promote the interest of the Society, and do all in their power to extend its beneficent influence to all parts of the Commonwealth.

My purpose in this brief address, has been to present you a plain

statement of the affairs of the Society, that your minds might be directed to the important matters of business that now require attention, and for this reason I have studiously abstained from offering any general observations of my own.

Before closing this brief address, it becomes my painful, yet grateful duty, to bring to the notice of the Society, the death of our beloved friend and associate of the Executive Committee, Franklin Minor of Albemarle, which sad event has occurred since our last meeting. He was one of the earliest, most zealous, and most efficient friends of our Society. He was a member of the two first meetings, in which abortive efforts were made in its behalf, and took a leading part in the meeting of February, 1852, which resulted in its permanent establishment. From that period until his failing health rendered him incapable of active service, he was one of the most zealous and influential members of the Executive Committee, and ever ready to contribute by his means and his wise counsel to the success of the Society. He was Master of Arts of the University of Virginia, a man of great learning and ability, yet so modest and unassuming that the most unlettered farmer felt quite at ease in his presence. As a teacher of youth, he did much to raise the standard of sound learning in Virginia. As a practical and scientific farmer he had few superiors. He was a plain, blunt man, having little regard for the fashionable conventionalities of society. Hospitable, warm hearted, generous and sincere, he was ever kind to his friends, affectionate to his kindred, and liberal in his benefactions to those less fortunate than himself. As a Christian, patriot, and philanthropist, he was justly eminent. His kindness and charity were confined by no artificial limits, but were extended and pervasive, and like the gentle dews of heaven, visited most copiously the abodes of the humble and the lowly. The death of such a man, in these times, is no ordinary calamity, and I deem it not only a duty, but a privilege, thus publicly to express my high appreciation of his merits.

REPORT OF THE SECRETARY AND TREASURER.

The secretary and treasurer then presented his report, which was read, as follows :

In accordance with the 5th paragraph of the 9th section of the constitution, requiring that the Secretary and Treasurer "shall keep regular accounts of all receipts and disbursement, and report the same to every stated meeting of the Executive Committee," I have the honor to submit a detailed statement of all pecuniary

transactions occurring since the last meeting of the committee, held on the 19th of November, 1866.

At that time the investments of the Society amounted to \$59,250 in Virginia State, registered bonds, of old issue, and \$2,800 of the new. Since then, in pursuance of the provisions of an act of the General Assembly prescribing conditions for the funding of the arrears of interest accruing up to the 1st of January, 1867, \$7,110 have been so invested, of which \$2,500 have been sold and appropriated under specific direction of the Executive Committee.

With a part of the interest received of the State for July, 1867—\$1,500 of old issue registered State bonds—at the cost of \$633 75—have been added to the permanent capital of the Society. The aggregate capital and resources—present and prospective—may be briefly recapitulated as follows:

Permanent fund:

Virginia State registered bonds of old issue,	-	\$60,750 00
Virginia State registered bonds of new issue,	-	2,800 00
		<hr/>
		\$63,550 00

Contingent fund:

Virginia State registered bonds for deferred interest,		\$4,610 00
Cash on hand the 30th September, the close of fiscal year		55 66
		<hr/>
		\$4,665 66

Prospective receipts for contingent purposes:

The January interest for 1868, less 5 per cent. State tax,		
\$60 75,	- - - - -	\$1,154 25
The interest for July, 1868, and January, 1869, at the		
same rate,	- - - - -	2,308 50
		<hr/>
		\$3,462 75

The amount of deferred interest to be retained by the State of 2 per cent. per annum, will be, on the 1st day of January, 1869, net - - - - - \$2,294 25

The State funded interest bonds carry interest at six per cent.

All which is respectfully submitted.

CH B. WILLIAMS,
Secretary and Treasurer.

REPORT OF COMMITTEE.

Mr. Ruffin, from the committee appointed by the Executive Committee to enquire into the expediency and practicability of holding an exhibition at some convenient time next autumn, was requested

to read his report to that body for the information of the meeting. Prefacing the report with explanatory remarks, Mr. R. then read the following report:

The committee to whom was referred the question of holding a fair next fall beg leave to report that it is highly expedient to hold a fair, if practicable. Three considerations must determine the question :

1st. The obtaining the grounds.

2d. Extraneous assistance.

3d. The political condition of the State at the time when a fair may be held.

The Central Society's grounds, where the State Society will hold a fair, are admirably adapted to the purpose, but they are offered on terms which, if insisted on, will put it out of the power of the State Agricultural Society to purchase them. Whether they can be rented or not, has not as yet been ascertained.

2d. If this purchase shall be made on the terms offered by the Society, it will absorb all the revenue of the Society for several years to come, as, according to the provision, section 10, paragraph 1, the principal cannot be appropriated to such a purchase, and if the property in question, or any other site, shall be rented, it will draw so largely upon the revenue that aid will be needed from other sources to pay the expenses of the fair. This, it is hoped and believed, will be cheerfully given, to the full extent of their means, by the public-spirited citizens of Richmond.

3d. The third consideration is the possible political condition of the State in October or November next. In addition to the causes of excitement which now exist, and which may be intensified by the acts of the present convention and its consequences, the period of the Presidential election will be at hand, and it may be improper to congregate in a large body at that time.

F. G. RUFFIN.

W. C. KNIGHT.

JOHN R. GARNETT.

Committee.

As there was not a quorum present, formal action could not be taken by the Society on the important matters brought to the notice of the meeting. Nevertheless, it being understood that the Executive Committee desired to be advised of the opinions of the members present, many of them participated in a full discussion and interchange of views, expressing their entire confidence in the discretion of the Executive Committee in acting on these questions.

The President then appointed Messrs. F. G. Ruffin, William C. Knight and J. R. Garnett, M. D., as a Committee to negotiate for the purchase of the Virginia Central Fair Grounds, if found practicable.

And then the meeting adjourned.

CH. B. WILLIAMS, Secretary.

The Mistakes of a Young Farmer.

Mr. Editor,—The *Southern Planter* comes regularly to hand, always freighted with the best agricultural intelligence. To my reading, it stands at the very head of monthly journals of the sort. I open its wrapper feeling assured that perusal will give me food for thought, and suggestions wise and safe. The great fault of agricultural periodicals is, as it seems to me, a wishy-washy style, and a hum-drum series of little paragraphs that remind one of the recipes of old women, who act in the stead sometimes of the regular physician. At all events, the *Southern Planter* has been of great service in helping “a young farmer” to avoid many other “mistakes” he doubtless, otherwise, would have made.

Most men prefer to record their successes. I prefer to record my mistakes. The former will take care of themselves. The latter I would impress upon my own memory, and whisper also to others that they may not fall into the same errors.

It is not necessary to tell my name, county or State. The simple facts are enough. I purchased a fine estate last summer, and took possession a little over a year ago—at the very beginning of winter. For twenty-five years I had never lived on farm or plantation. The impressions made in boyhood by actual contact with farm life were the only practical information I had with which to begin my new life. The long interim had been devoted to letters, and a profession not at all in harmony with the rugged experiences to which I was about to be subjected. It is no wonder, the charitable reader will say, that such a “young farmer” should make mistakes. But I find that my mistakes are so common with old as well as young farmers, that more than one of your readers will “confess judgment.”

Mistake 1. The *cattle* I purchased were in good order and ready for winter; but I suffered them to stand out in the long winter nights, unsheltered from falling weather and the cold winds and frosts, and the result was that they grew poor and still poorer; and by spring, several of my best yearlings had died, and others were

feeble and unpromising. Had I sheltered my cattle, the amount of food consumed would have kept them in good plight. In consequence of the neglect, I not only lost some of my finest cattle, but all of them became so low in flesh that it required the pasturage of a half summer to restore them to the condition in which they were when they first became my property. Cattle cannot be inured to the cold winds and cold rains of winter. Even the long chill nights of dry November do them harm. Every calf, cow, ox, heifer and steer,—aye, every living animal, hog and sheep and horse should be sheltered every night after the middle of November until the middle of March, or even later. The labor required and the shelter necessary will be repaid to the farmer in the health, longevity and fatness of his stock.

Mistake 2. The hogs gave me last winter much solicitude and trouble, and yet out of forty-two pigs dropt, only twelve now survive, and only eight of them are first-class shoats. No man ever devoted more attention upon his sows than did I—in my way; but the way was wrong. In the first place I very unwisely introduced in January among my hogs four strange sows, heavy with pig, poor and mangy. In connection with this mistake, I did not separate the sows before pigging, but waited until afterwards, and then attempted their removal from the other hogs, but still kept all the sows with pigs in the same range or enclosure. The new sows laid together, and overlaid many of their pigs and ate them instantly. The sows of the farm saw and then soon joined them in their unnatural repast, and thus with them became eaters of their own pigs. The results of the introduction of the poor mangy sows, and my failing to separate the sows *to themselves before* pigging were—mangy hogs, pig-eating sows, and the loss of nearly all the litters of last winter. Since then, I have done more wisely. My hogs are improving. The sows I now have (for the old sows are in pen as fattening hogs) do well; and I trust ere long that my experience, though dearly bought, may raise me a large herd of hogs.

Another mistake in relation to hogs: Last spring, the sows made poor and voracious by their pig-eating habits, became very troublesome to the early crops. I had two or three dogged; two of them died from it, and the third lost her pigs twice in succession. No hogs are ever dogged now on my place. If they break into my enclosures, I find out the weak and faulty places and repair without delay. If the hog becomes incorrigible and leaps the fence, he goes into the pen to come out pork. If farmers intend their hogs to feed on worms and acorns, they must see to their fences: if on

grass and grain, the cut nose or the ring in it, will cure the hog's mischievous propensities in nine cases out of ten. And as to the introduction of strange hogs into your range, no farmer should risk the mange or the lice without first washing the new comers with very warm soap-suds, greasing them all over from head to tail, and then coating them with unleached ashes. This will take time and labor, but it will pay. An ounce of preventive is always worth a pound of cure.

Mistake 3. My horses. During the long winter weeks in which my horses and mules had but little to do, I thought it economy to withhold full feeding; but in the hard-ploughing season of spring, I saw my error. Had my stock been fat and strong half the food would have been enough to keep them in good plight, and then they would have been capable of doing far more labor than they did. Besides, I was not able then with heavy feeding to get my stock in good condition until the autumn. I am now, however, pursuing a different policy. I feed well all the time; and two weeks heavy ploughing this month in an old meadow has not reduced them in flesh at all, and jaded them but little, though they have ploughed early and late from day to day. I am satisfied that good grooming and sumptuous feeding in the winter will save much food in the course of the year, give utility and endurance to the horse for the hot days of spring and summer, and yield one-third more efficient service in the round of the planting seasons.

So much for the mistakes as to my live-stock. Below are those which immediately pertain to the act of farming *per se*.

Mistake 4. My meadows. Some one told me to harrow my meadow in the early spring. I did so, and almost ruined it. It tore up the sod—skinned it in spots two or three feet square. My wiser neighbor hitched oxen to a large crab-apple bush and “dragged his meadow.” His grass crop was abundant; mine very limited. I shall also drag my meadows and subsequently roll them.

Mistake 5. My fences. I made last spring over twelve hundred new pannels of fencing—the old Virginia worm, and the upright stake fence. The worm fence I staked and ridered well enough, but I had but one rider, and in consequence my neighbor's sheep and my own hogs could leap between the upper rail and the rider. Subsequent worm fences I have made with two riders,—the lower with one end beneath the stakes and the other between them; thus barring the rectangle with the diagonal half-rider, so to call it, which I have just described. This makes one of the very best fences—strong and firm and secure against all kinds of stock. The upright

stake fence I built in a direct line. The rails pressing heavily each upon the other, in many instances, have forced apart the upright stake, broken the embrasures at the top, and the whole is bidding fair to tumble into a simple pile of rails. I fence differently now. The upright stake fence is built with a slight worm, and thus each rail becomes a support to the one above; the stakes have no pressure against their sides, and hence the recent fencing stands firm and unbroken.

Mistake 6. My corn crop. The land is chiefly river and creek bottom. The old plan and the present one in this community is to drill the corn and then hoe the crop twice or thrice over. I put in over seventy acres, and my grassy bottoms made the hoeing a fearfully expensive and laborious task. The expense of cultivating the crop has far transcended the yield or profit. The seventy acres required the labor of seven to eight hands; whereas, had I checked my corn, three cultivators instead of the seven hoes, would have done the work far better, and left my fields clean instead of very ragged, as they now are, with all kinds of wilted grasses and dry weeds. The argument in favor of drilling corn especially in low land is chiefly based upon the following supposed facts: First, it affords a sort of surface drainage. Secondly, it prevents the young roots from being so much torn and destroyed.

As to the former, the surface drainage is as much secured by cross ploughing as otherwise, inasmuch as the last ploughing always ridges the land between the hills; and if these ridges change positions it is all the same in level land. As to the latter, I affirm that the cultivator in cross-ploughing will interfere less with the roots than the hoe. All that is necessary is deep ploughing and thorough pulverization before planting; then the cultivator will do the work of the crop afterwards, without mutilating the roots to any serious extent. In connection with my corn cropping, I must not omit to mention the subject of fodder gathering. The universal practice in these parts is to strip the blades and cut the tops—pull the corn, haul it in the shuck and then have one grand “shucking!” Before the fodder is stacked and the corn cribbed, the number of handlings is surprising. First, there is the stripping; second, the topping; third, the binding; fourth, the shocking; fifth, the hauling, and sixth, the stacking. Then as to the corn—First, the pulling; second, the hauling; third, the shucking; fourth, the stowing away the shucks; fifth, the cribbing the corn. With about half my crop I adopted this plan, and dearly have I paid for my whistle. Upon close calculations, I find that my fodder and corn of this portion

have cost me one-fifth, at least, more than those of the other portions with which I adopted a different plan. A detail of the handling of the stover and corn for the plan I am now referring to, will show the immense advantage it possesses over the former. I will premise it by stating that cutting off the corn stalks at the ground, did not require but one-third the time required for blading and topping. Then again, in subsequent cultivations of the same fields, the old corn-stalks are not there to choke up the plough, and otherwise interfere with clean husbandry. A third advantage, also, is that the stover secured amounts to far more in quantity and affords much more nutritious matter in the stalks and blades, having preserved much of the saccharine juices and other elements which induce the ox to eat up both stalk and blade. Thus there is more of both quantity and quality secured by this method. A fourth advantage which may be mentioned is the superior excellency of the corn to that left on the stript stalks. The latter is nearly always affected to a greater or less degree in this climate by the frost; and the grains, robbed of the lungs to the stalk, wilt and shrink. The former is never injured by frost or cold, and the grains fill out in plumpness, into beautiful symmetry and proportion, in consequence of the blades and stalks sending down and concentrating into the ear the corn elements not yet exhausted when the stalk is cut. The beauty of the corn is not only superior, but the weight exceeds that of the latter by at least a difference of five bushels to the acre of first class land.

Now, let me notice the matter of handling. In cutting off corn, there is first, the matter of simply cutting and shucking, for it is all done at the same time and with the same handling; second, the shucking and tying up the fodder—both done at the same time and with the same handling; third, the hauling, and fourth, the stacking.

In gathering the corn, the shucking already accounted for may be mentioned as the first handling—then the cribbing. The hauling is no part of the handling; as it was part of the cribbing in the former case, so it is regarded in this latter. Thus we have but four handlings of the fodder for my plan against six of the other, and two handlings of the corn on this plan against five of the other; and adding to the saving of time and labor and money the other advantages mentioned above, I do not wonder that in the more advanced agricultural districts the stripping and topping of fodder are now unknown! I shall never gather fodder and corn in this obsolete way again. I have tested the two plans, and the results are

unanswerably in favor of cutting off the corn stalks at the ground for fodder and gathering the corn from the shock!

Mistake 7. I permitted a strolling *machine company* to thresh out my small grain. The machine was worthless, and the hands (the sweet-scented freedmen from South Carolina) still worse than the machine. One-third of my wheat, rye and oats were left in the straw and wasted upon the ground. Hereafter this bit of experience will make me more cautious as to quality of machine and the worth of the hands accompanying it; or it will teach me the necessity of buying one for my own use.

Mistake 8. My *oat crop* found a sad failure. I will transcribe from my farm journal the record made August the 2nd, 1867:

“The threshers came at 11 A. M.; went down ate dinner and went to work, when lo, it was found that all my oats were almost ruined by dampness, etc. There were sundry causes for for this—

1. The oats ought to have been cleaned of weeds before they ripened.

2. The oats should have been cut down in the forenoon and bound up in the afternoon. At least they should have been better cured before binding.

3. They were bound into two large bundles.

4. They were stacked too damp, caused by a recent rain, and the stacks were too large.

The result of all this bad management is that I will lose all the straw, except for manure. I will lose all, or nearly all the chaff on account of the weeds and the mould. The chaff, I had hoped, would serve me well for mixed feed for the horses. Over one-fourth of the oats is lost in the damp chaff which the fan could not eliminate. All the oats are seriously endangered, and will require much stirring and great care to keep them from moulding.”

All this is an unfortunate record for the reputation of a farmer; but I care nothing for that. I do not profess to be a professional farmer. I am simply trying to be a number one *practical* husbandman; and to attain that end, there is as much necessity for me to observe the proverb of the wise man, agriculturally, as it is religiously, “He that covereth up his sins shall not prosper!” To prosper, I am willing to lay bare my agricultural iniquities, even at the risk of being made a laughing stock for those wiser and more skilled than I.

MARLOW.

December, 1867.

Our Exhausted and Abandoned Lands.

WHAT CAN BE DONE WITH THEM?

Various articles have appeared of late years in our agricultural journals on the exhausted and abandoned lands of the Southern States; but no one of them that has fallen under my eye, seems to me to meet all the exigencies of the case, or, indeed, any of them in such a way as to come within the means of the small farmer. Yet that these lands may be restored to their original fertility, does not admit of a reasonable doubt. My own belief is, that they may be made to reach a point in productiveness far beyond it, and that by means which every cultivator has in his own power, the poor as well as the rich. It is true, this power is not held by them to the same extent; for while the one in carrying on the process will have to depend wholly, or almost wholly, upon the tardy operations of nature, the other assisting her efforts by those means which wealth places in his hands, will accomplish his object at once more effectually and in shorter time. That, however, does not fundamentally alter the case. Both may succeed, and if they pursue their object with equal firmness and energy according to their respective means, the one will be just as certain to succeed in the end as the other. But instead of speculating about the matter, I will go on to state a case illustrative, as it appears to me, of the truth and practicability of this position, and which I know to be a certain fact, because it fell within the course of my own management and experience.

It was about the year 1847, if memory does her office, that while planting on a small scale in the Piedmont region of this State—North Carolina—I ordered a small piece of greatly exhausted land to be sown in wheat. The reason of this change of crop was that the land spoken of had been planted in corn for full sixty years in regular succession before falling into my hands. The statement may look a little improbable; but so I was told by those, who adduced sufficient reasons for believing it true, and whose veracity I had never found reason to call in question. The consequences of such management may easily be imagined. The annual yield had dwindled down to almost nothing at all. I do not believe that the previous year it had paid the expenses of cultivation. It was a low triangular plat of secondary interval, lying at the foot of a pretty sharp hill on the southside, with a small branch on the east and a ditch on the north and west intended to lead off the excess of water from it and the grounds adjoining; but this ditch was so insufficient and

the draining consequently so imperfect that a little more experience in wheat culture might have led me to anticipate at least something like the result which followed. But, to proceed with the case, the land was ploughed deeply, cross-ploughed, and then harrowed till pulverized as thoroughly as land so long and greatly neglected and abused well could be without going to an unjustifiable expense of time and labor. When the wheat appeared, it looked remarkably well, though not a particle of manure had been applied to it in any shape or form. As the spring advanced, it tillered off finely and gave promise of an abundant yield, the stalks attaining a more than ordinary height and thickness on the ground, with heads of proportionate size. But the season, wet, cold and backward, was especially unpropitious to wheat on land so situated; and when the time for harvest came round, it was found that the amount of grain, which appeared to have been blighted in the ear, would not justify the labor and expense of gathering. Under the circumstances, therefore, I concluded the best thing that could be done would be to try an experiment with the almost wholly grainless straw in the way of restoring exhausted lands; and accordingly gave orders that it should not be touched, but left to fall and lie upon the surface where it had grown.

“What,” said old Frank, the submanager and a privileged character on the place, “you gwine to let um stan daar jus so till nex yeere?”

Yes, Frank, if we live so long, or at least till spring ploughing time comes round again, and from then till corn-planting, which with me, in this region where winter commonly lingers so long, and at last passes so fitfully away, is always, you know, on the 20th of April, let others do as they may.

“Why, marst, you nebber git a plough froo all dat stuff no how when um all tumble down so tic an heavy. But I s’pose you gwine to burn um off when the time come.”

“No, no, Frank, that ground has had burning enough for the last sixty years from the hot sun, without now resorting to actual fire to complete its ruin! Burn it off indeed! A wise plan that! Catch me doing such a thing if you can. Do you let all stay just as it is, and I will see to getting the plough through when ready for it.”

“Well, marst, you will hab you own way any how, so I s’pose it mus be done, but I neb see tings done so afore in my life; dat’s it:” and away went Frank, utterly scandalized, no doubt, at his master’s stupidity.

So the wheat stood, shielding the ground from the summer’s sun, till the winds and rain beat it down, and the snows of winter set-

tled and passed it into a deep, dense mass upon the surface, protecting it now from excessive cold as it had previously done, from excessive heat, and drawing fertility into its bosom by its agency in some process, which in all its minute details lies, perhaps, beyond the reach of our philosophy, but which we all well know is always going on between the earth and the atmosphere wherever the former is properly protected from solar and other influences. The winter was an open one. Taking advantage of a few pleasant days in February, I ordered in a large plough with two able horses, that turned the whole up from six to nine inches deep, completely inverting the soil and leaving the straw beneath it to decompose as it might till at least the middle of April. Sure enough, as Frank had foreseen, it was hard work to get the plough through; but by dint of a little energy and perseverance, the work was at last done to our entire satisfaction. A heavy roller ought now to have been passed over it, and a dressing of lime at the rate of at last thirty bushels to the acre, should have preceded the ploughing, but we had neither at command. Early in April the ground was cross-ploughed, torn to pieces and mixed up with the now pretty well decomposed wheat straw by every means within our reach, and on the 20th, or as soon after as practicable—for it was a standing rule never to begin to plant under any circumstances before that date—was put into corn, peas and pumpkins following in due course of time at usual intervals between the hills in the rows. I was much afraid of worms on account of the quantity of yet undecayed straw about the roots of the young plants, but fortunately none appeared. All came up well in their turn, and unchecked by cold, the season for that having passed away, grew with great rapidity and vigor. By the time the second ploughing and hoeing were through with, all were in a condition to lay by. There was no longer a chance for weeds to make any injurious progress. A third ploughing would have done more damage to the vines, now extending between the rows, than a first stirring of the soil would have benefitted the crop as a whole; so we left it to get on as it might with that comparatively small amount of working.* The result, as nearly as I could judge, for it was not measured, was between fifty and sixty bushels to the acre, besides the pumpkins and peas by far the best crops of their kinds on the plantation. Larger crops have often been made no doubt, but few larger ones, I think under the circumstances.

But the point to be come at is, how are we to account for the

*It was common with those who planted very early in that section, to plough their corn four and even five times, to say nothing of frequent replanting.

above remarkable increase in the yield of this land—fifty or sixty bushels of corn to the acre where not more than five or six had grown before, to say nothing of peas and pompions, which in themselves alone proved almost a remunerating crop? It can not be supposed that the fertilizing properties of the straw alone produced an effect so remarkable. It would be folly, to assert that; for the whole when decomposed would scarcely have made matter enough to give the land a dressing that would have been visible to the naked eye; and we all know that this material, possessing very little nutritive power, can make but a very indifferent manure. The only rational way of accounting for it is on the principle above indicated, namely, that there is going on an absorption of fertilizing elements by the earth from the atmosphere, whenever the former is properly protected against the unhealthful effects of violent heat, violent cold, and violent winds. We see the truth of this around us in various ways. We see it wherever a piece of board, a log of wood, or even a large flat stone, has been lying on the ground for a few months; wherever chips, straw of any kind, sawdust, spent tanbark, or any substance, however poverty-stricken in itself, as a pile of rocks for instance, has been suffered to accumulate; above all, we see it in the forest, which literally lives, feeds and fattens upon its own *shadow*, and the small—small certainly in point of bulk and weight—amount of withered leaves which it yearly gives back to the earth in return for what it has taken away. So true is this, that the land on which such forests grow is known to improve constantly, and the denser the covering and protection afforded by its mouldering foliage and refreshing shade, the more dense, healthy and vigorous the growth of timber becomes? Thus it is that one of our most thoroughly worn out fields, that will yield sedge-grass only, and that, with much ado, if left to grow up thickly in young pines, after a few years will so far have recovered its strength as, on cleaning up again, to produce a crop of peas, wheat, or oats almost equal to the first it bore after being cleared from the forest. So again, take an armful of clover hay, and place it upon the poorest spot of the poorest old field that has any surface soil left upon it, and let it remain there for six months undisturbed, and on removing it the ground beneath will be found black as a hat and so soft and friable that from the pressure of his own weight alone a man's foot will sink into it half-shoe deep. I know this to be true, because I have seen an instance of it on my own land, and am fully persuaded that if any such spot were planted in corn after the clover had been worked in among it, it would return, not a hundred, but a thousand fold. I believe there

is no denying the general principle thus evolved. No man who has eyes, can close them to its truth, for it lies before him in legible characters wherever he goes and at every turn he takes. Properly interpreted it is this :

WE HAVE THE MEANS OF RESTORING THE LAND IN THE LAND ITSELF :

In other words, protect the land and the land will take care of itself : give it nothing but what, after ploughing, will spring spontaneously from its own bosom, and it will feed itself and grow strong and fat upon the process.

T. S. W. MOTT.

Gardenfarm, Catawba county, N. C. Nov. 25th, 1867.

TO BE CONTINUED.

Constitution of "the Albemarle Hole and Corner Club, No. 1."

[Having been frequently called on to furnish information to public spirited and patriotic gentlemen in different parts of the State that might be available for their guidance in the formation of Agricultural Clubs in their neighborhoods or counties, we have determined to publish in "The Southern Planter and Farmer" a formula, which, with the changes rendered necessary by circumstances, will be likely to meet every requirement. To this end, we present the constitution of the Hole and Corner Club of Albemarle, which was founded in 1842. "Its name," we learn, "was taken from that of similar clubs organized in Scotland in 1784, and from which arose the celebrated association : 'The Highland and Agricultural Society' which has changed the face of that country and in spite of its stern climate has converted its barren heaths and reluctant soil into one of the best cultivated and most productive portions of Europe."

From its significant appellative our readers may infer the close scrutiny with which our Scotch cousins were wont to watch over the minutiae of every interest, comprised within the borders of their association. If the name were necessary to that object, we should recommend its adoption under all circumstance, but as it is not, we prefer the more modern title of Farmers Clubs.—Ed. **So. PLANTER AND FARMER.**]

"Among the causes which seem now to retard, in this section of country, the improvement of agriculture, both as a science and as a source of profit, and which tend to render farming an irksome, instead of a pleasant occupation, we note the following as the chief :

1. Careless and inaccurate experiments, of which the results are either altogether unsatisfactory or lead to erroneous opinions.
2. A slovenly and incomplete execution of farming operations, whereby fields, half ploughed and crops half tilled, fail to realize our hopes.
3. Insufficient and immethodical attention to beasts of the plough, and stock all kinds.
4. A want of careful attention and accurate

observation, whereby wrong and hasty opinions are often formed.

5. The absence of combined exertion to improve our profession.
6. The want of sufficiently free and social interchange of individual views and experience among farmers.

“Wishing to remove these and all other obstacles to the improvement of our profession as far as we can, we have determined to associate ourselves into a neighborhood club for the purpose of testing the theoretic branches of husbandry, by more thorough and accurate experiments and observations; with a view of exciting a desire for, and determination to have better preparation, tillage and general culture, by frequent neighborly visits and inspections of the condition of each others farms, and with the hope, by a free and unrestrained exchange of our different views and opinions, of eliciting the truth, deriving mutual knowledge and improvement, and promoting social feelings and happiness. And as it seems meet and necessary, when men unite for the attainment of a common object that they adopt organic rules for the direction and government of their combined efforts, we do agree to adopt the following as the basis of our organization:

“1. We will call our association, “*The Albemarle Hole and Corner Club, No. 1.*”

“2. The officers of the Club shall consist of a President, Vice-President, Recording Secretary, Corresponding Secretary and Treasurer.

“3. It shall be the duty of the President, and in his absence, of the Vice-President, to preside at all the meetings of the Club, to preserve order, to appoint all committees, and to call meetings of the Club whenever he may deem its interests require it.

“4. The duty of the Recording Secretary shall be to keep a full and regular record in a bound book, of the proceedings of the Club, subject to the inspection of any member, and he shall, at every meeting, read the minutes of the preceding meeting, with a view to the correction of the same and for the information of the members.

“5. It shall be the duty of the Corresponding Secretary to conduct all the correspondence of the Club; to prepare for publication all parts of proceedings, reports of committees, &c. which the Club may order to be published—to pay all expenses which shall be ordered by it, and to keep a separate account, and make report and exhibit of the same at the end of his office.

“7. The officers of the Club shall be elected at the present meeting, and continue in office one year from the date of their election, or until others are elected in their places. All elections shall be *viva voce*.

“8. The limits of this Club shall not embrace more than twelve farms, and the owners and representatives of these farms shall be

the members of the Club; and no farm situated more than twelve miles from the forks of the Rivanna River shall be embraced in the limits of the Club.

"9. The Club may elect honorary members of the most distinguished agriculturists or scientific men of the vicinity, whose privilege it shall be to attend any of the meetings of the Club, and assist in their deliberations, and interchange views and opinions on all subjects connected with the great interests of agriculture.

"10. Membership shall be constituted by subscription to the rules of the Club; and may be dissolved by voluntary withdrawal, or by failing to attend three successive meetings, unless excused by sickness or absence from the neighborhood.

"11. New members and honorary members shall be elected only by unanimous vote; but all other questions shall be decided by a majority; except so far as may affect the rules by which a vote of two-thirds of the members present shall be required.

"12. The Club shall meet on Saturday at one of the Club farms in regular succession once in every three weeks, beginning on the second Saturday in March and ending on some Saturday in November, except that one meeting shall be held in January; and each meeting shall designate the farm on which the next shall be held.

"13. The Club shall meet on the day and farm appointed, at 10, A. M. and proceed to examine into and inspect all the operations in execution at the time, the condition of the farm, stock, horses, &c., the general mode of culture, rotation of crops, the subject of manures, and all other branches of husbandry—making such inquiries as may occur to them, and suggesting such improvements as they may think proper.

"14. The Club shall dine with the owner of the farm at which the meeting is held; and after dinner shall discuss, in an orderly and temperate manner, by conversation and not by speeches, such agricultural subjects as may have been selected for discussion, or as shall occur to them, if none shall have been selected. No subjects shall be introduced into the conversations of the Club unless it be of kin to agriculture; and politics shall especially be excluded.

"15. If the day appointed for the meeting of the Club be such as to prevent it, the meeting shall be held on the farm appointed on the Saturday next succeeding.

"16. At each meeting a subject shall be selected for discussion at the next meeting, and when the discussion shall be finished, any two members may call for a decision of it by the vote of the Club; in which case, each member shall concisely give his opinion and the reasons therefor in the order called on by the President, an abstract of which shall be recorded by the Secretary.

"17. Any subject selected for experiment by the Club shall be tested by a committee of three members, who shall make it in a fair and impartial manner, and shall report separately all the facts and circumstances which may attend it. Any member may suggest a subject for experiment; and as often as the Club may deem expe-

dient, a committee of three shall be appointed to suggest experiments.

“This being the most important object of the Club, it shall be imperative on the members appointed, to make an experiment, to do so with care and attention, and to embrace in their reports all the circumstances and important features of the experiment, and all such facts developed in its progress as may conduce to accurate conclusions.”

Cotton Cultivation.

The attention of our own people, and those of some nations abroad, is directed with much interest upon the South, watching the efforts being made in that section for the restoration of cotton cultivation to its former prosperous status. Is the South perseveringly bending all her energies towards the accomplishment of an object fraught with such vital importance to herself, and in the full and speedy attainment of which lies the possession of a degree of commercial power abroad and political power at home, and in which, also, lies the means of restoring the comforts and luxuries that were swept away by war? Is she alive to the fact that she must not yield to the obstacles which beset her, but WORK—and work faithfully too—to destroy the threatening competition which exists in the combined efforts of Egypt and East Indies; her two greatest rivals? If she is not so laboring, and if she does not so comprehend the dangers which assail so seriously her cotton interests, the sooner she does so the better it will be for her own welfare and that of the entire country. The cotton production of both East India and Egypt, before the war, was, comparatively, but trifling in extent. During the war, however, through the exertions made by both nations, the annual crop of each was greatly increased. An idea may be had of the extent of the exertions put forth in this direction by both powers, when we state that, in 1865, the cotton yield of Egypt was one thousand per cent. greater than before the war, and the East Indian yield nearly two thousand per cent. This result cannot be a subject of marvel when we reflect upon the potent influences brought to bear for its accomplishment. The attention given to the subject, and the patronage and protection lent by the British Government; the powerful private organizations and immense capital invested; the strenuous efforts of the owners of those then silent mills all over England, upon whose sills the grass fairly grew; the infusion of British skill, means, energy

and enterprise into tardy India and undeveloped Egypt, are among the many combinations that were then made to improve to the uttermost the golden opportunity presented to oust the United States from her control of the cotton markets of the world, while war compelled her absence from them. How well they succeeded may be seen from the fact that all the leading cotton-growing countries have for the last five years far outstripped the United States in the supply of the staple. In 1859 England imported one and a quarter billion pounds, and consumed in that year, of this supply, over nine hundred and seventy-six million pounds. Of this consumption, according to reliable estimates, *four fifths* was American cotton. In the following year this country produced nearly five million bales; a sufficient quantity to have supplied all the looms of the world, without recourse to other nations. In 1863 England imported nearly two million bales from all sources, and of this supply America furnished only one hundred and thirty-two thousand bales, Brazil about the same quantity, East India over one and a third million bales, and Egypt and other countries about two and three-quarter million bales. In 1860 the cotton production of this country was estimated to be nearly ninety per cent. of that of the whole world. In that year there was a large surplus, with prices ranging from ten to twelve cents a pound in New York for middling, and from fourteen to fifteen cents in Liverpool. The average percentage increase of consumption of cotton in Europe, for the ten years prior to 1860, was somewhat over six per cent. The increase for the single year 1858 was eight and three-quarters per cent.; for 1859, nine and a half per cent.; and for 1860, ten and a quarter per cent. The average annual increase of consumption in this country from 1850 to 1860 was about equal to that of Great Britain.

These figures will serve to show the status of the cotton interest just prior to the war, and are certainly calculated to extend encouragement as to what we can do toward securing our old control of the markets, provided we put forth due exertions. There is every reason to believe that this country possesses insuperable advantage over all the cotton-growing countries. It is estimated that, even though cotton kept at forty cents a pound for the present, Europe would take from us, probably two million bales; and at twenty-five cents, probably three million bales. This means from three hundred to three hundred and twenty millions of treasure for the South, and all the plenty and prosperity that would follow in its train. Under such a prosperous reign, ruined fortunes would soon be rebuilt, and war-banished comforts would be brought home

again. It is indeed fortunate for the South that she holds the power of so easily and so rapidly retrieving her immense losses. In less favored regions, repair of such vast disaster as hers could only be attained through long and severe labor and trial. But blessed as she is by munificent Nature, she has but to plant and behold her crops brought to perfection, with one-fourth of the labor required elsewhere. And of those crops, one constitutes the most important item of commerce among nations; the general market for which she can permanently command if she but wills it so. That she may will it so, is the earnest desire of all, and is of great importance to the commerce and manufactures of this country. We have had accounts of exhaustion of cotton-producing lands in some parts of the South. It can scarcely be believed that this exists to any serious degree. And if it did, recourse can be had to fertilizers; some of which have been proven to be greatly restorative of the cottonlands. We have but to look at the experience in the use of these, ten years ago, on the exhausted soil of Georgia, South Carolina and North Carolina, by which that soil was rapidly restored to a productive power, equal in quality and quantity to that of fresh soil. It may be remembered that the guano-grown cotton of North Carolina held high rank in the markets as a strong excellent fibre, specially adapted for use in those manufactures requiring a strong cotton. It has been held that one pound of guano will produce from a half to three-quarters of a pound of cotton; and if it could be profitably used; as it certainly was before the war, at a cost of three cents a pound, when cotton brought but ten cents, it is but reasonable to suppose that the profit of use now would be equal to the ratio of increase of prices.

This whole matter of cotton cultivation to the full extent of our capacities, and in spite of the obstacles presented, is one that we would earnestly urge upon the attention of the South. We would have her fully appreciate the influences working against her abroad, and have her make those efforts alone necessary to regain her lost cotton-control in all markets. We can see in the first full crop that she produces the commencement of that season of great prosperity which is surely in store for her.—*New Orleans Commercial Bulletin.*

If rich, be not elated; if poor, be not dejected.

Adversity flattereth no man.

Do nothing to-day that you are likely to repent of to-morrow.

Practical Hints on Irrigation.

It has long been a matter of surprise to the writer that the intelligent farmers of New England, New York and other Northern States are so slow to appreciate the advantages of irrigating pastures and meadows for the purpose of increasing the growth of grass—an article which they so much need for keeping farm stock, producing wool, butter and cheese, and augmenting the supply of manure for land cultivated in grain. All know that tillage and the annual removal of crops impoverish the soil; and, therefore, the principle of *restitution* is more fundamental, important and universal than any other in modern agriculture. Our system of tillage and husbandry is eminently commercial when compared with that of China, Japan and other oriental nations, where both irrigation and manuring have been found indispensable to sustain alike the fertility of cultivated ground, and the people who subsist on its fruits. Regarding history as philosophy teaching by example, I have selected a farm lying between Bay's Mountain and the French Broad river, that has natural advantages for arresting fertilizing atoms that flow into the Gulf of Mexico, and converting them into grass and clover in the first instance, and then into milk, wool, mutton, beef, the flesh of horses, and mules, and into manure for fields which are too elevated for irrigation.

The late war left me little more than my thinking apparatus, undestroyed; and I am using it to indicate some of the ways and means by which the elements of crops that flow into the ocean and great lakes may be saved on every American farm. Surface washing removes from ploughed fields not a little of the finer particles of mold, clay and sand, which proper horizontal ditches, and deeper ploughing, would wholly prevent. Muddy water is better than limpid for watering any land; for it has, in addition to all soluble salts, as in clear water, much fertilizing sediment which may improve the soil for years to come.

The general fertility of the mud deposited on river flats and bottoms is well known; and that which collects around springs and in low places on mountains and hills is only a little less productive.

I have directed the water from a grist mill to distribute mud and agricultural salts, held in solution, over a pasture and meadow, and find that its mechanical power, thus applied, is much more profitable than in grinding grain. Mills for grinding grain are plenty; while the use of water-power to convey fertility to many acres of farming land is, in some respects, a new idea, although the practice

is as old as Babylon, Thebes, Nineveh, Sodom, and Gomorrah. I have been somewhat restrained from writing in favor of irrigation from the fact that it developed that degree of fatness and sensuality, in the great nations of antiquity, which undermines the moral and physical powers of the human system. Too great and sudden prosperity may ruin our nation; for the "flesh and the devil" will have their way where "the love of money" is cultivated, and becomes "the root of all evil."

The first thing to be done to irrigate a piece of ground is to bring the water in a ditch, large in proportion to the volume of water, at the highest attainable level. The lower side of this conduit should be well set in grass, and on a water level; so that if it overflows, in a heavy rain, the water will be too shallow to break the sod or turf. A thin sheet of water never does harm by cutting channels or gullies. Where the surface to be affused is a side hill, horizontal gutters to catch the water and prevent the formation of rills must be much nearer together than on ground where the descent is less. A gutter for the equal distribution of water, once in ten yards, answers for a pretty steep side hill; and in every thirty yards answers on ground with fall enough for water to run in grass.

Wishing to extend my pastures and meadows by raising grass seed for home use, I cannot cut grass for hay as soon as it ought to be, especially when it is lodged from irrigation. But while meadows need no artificial watering by reason of the heavy crop on the ground, pastures are greatly benefited by it; so that no water need run to waste. Cows giving milk, and young mules and colts delight in feeding on fresh, irrigated grass in pastures, in preference to grass in the same field not fed with spring water. This water holds lime salts in solution, and gives grass more bone-earth than it has where the ground is not often saturated with it. The power of clay to extract agricultural salts from water is now pretty widely known; but the art of distributing these salts by the proper use of moving water is either not understood, or sadly neglected.

It requires no great labor, nor science, nor capital, in any shape, to irrigate land where it rains, as a general thing, every month in the year. Many a gorge in New England, as well as in Tennessee, can easily be made into reservoirs to hold water for irrigating purposes. Every surplus of rain should be caught in some way for home uses in feeding plants. Water that comes from the clouds is an agricultural power of inestimable value; and nearly all of it may be utilized on a farm.

Subsoil irrigation, as has been long practiced near the mouth of

the Po has many advantages. It is the reverse of underground drainage. Where water-power is abundant, as in this mountainous country, it is obvious that water may be elevated by forcepumps at a small cost, for watering grass land. Nor would an ox driving a Prisian irrigating wheel, (used since the flood,) consume more than a tithe of the grass which the water raised would produce. If irrigation did not accumulate agricultural power, how could it have been so long practiced as a source of reliable income? For what good reason is this income from irrigation rejected by American farmers?

Having territory and solar heat in boundless quantities, what do we need more than the judicious use of rain water to accumulate the essential elements of fertility in every acre occupied in the republic? In place of impoverishing our farms, it should be our ambition to show to all men that our soil is richer in plant-food than nature made it before man took it in hand. Irrigation will do this unless nature fully saturated the ground with fertilizing substances. Where this has been done, of course human industry can only repeat the operation, if the land has been impoverished.

If the facts were not well known that water descends some thousands of feet into rocks and strata that abound in the fertilizing remains of animals, some of which are brought to the surface, it might be doubted whether one could largely increase fertility by water alone. But the bottoms of ponds, lakes and rivers, where moving water has had its full effect, show its tendency to fertilize the earth.

Near a spring, with whose water I am about to enrich a side hill, I cut a blackberry cane 16 feet 8 inches in length; and common weeds grow proportionably high or at least tall enough for mules and cows to hide in along streams. To carry the productiveness of rich bottoms up the sides of hills and mountains, one has only to irrigate them; and especially with spring water that has salts of potash, soda, magnesia, plaster and the phosphate of lime, in solution. To have a plenty of sea salt for manure, one has only to take it from springs before it runs down to the sea. In this way he may make full restitution to a field whose crop has been sent to market, without robbing another field of some of its fertilizing atoms.—D. LEE, in *Cult. and Co. Gent.*

Gap Creek, Knox. Co., Tenn.

Do nothing you would wish to conceal.

Manure—Its Preparation, &c.

All organic substances contain the elements of decay embodied in their organization, and as natural manures are composed mostly of organic matter, they naturally undergo the process of decomposition—some with greater, others with less rapidity. In this process there is a general setting free, or change of elements, and as some are volatile and others soluble, it is seen at once that, unless means are used to save and retain such portions of the manure, they are lost to the immediate possessor. If this decomposition is permitted to go on unprotected in the open air, the volatile portions pass off into the air, while the soluble will be likely to be washed out by the rains and dews. Such exposure, then, subjects the proprietor to losses that can ill be afforded; his land is robbed of the most valuable portions of the manure, and, as a consequence, his crops will be less in proportion to the amount lost.

Such being the case, it will become the cultivator to provide suitable shelter and protection, under which to compost and prepare his manure. Most convenient and economical, where barns are required for stabling stock, would be barn cellars, or basements, made conveniently commodious to store and prepare all the manure of the stable and yard, with conveniences for entrance with team to cart in compost material, and to haul out after preparation. They should be protected from drafts of wind, which draw off the volatile gases, and be impervious to water, holding, as well as excluding, that none of the liquids may be lost; and if frosts are excluded, the process of fermentation goes on slowly all winter, which materially aids in advancing spring work. Absorbents and deodorizers should be provided in sufficient supply to mix with the manure from time to time, to absorb and retain all the liquids and volatile elements that would otherwise escape; and the more intimately they are mixed, the more effectually is the object accomplished. Many, I am aware, are averse to keeping hogs on the manure heap, but from experience and observation, I am fully persuaded that the manure is more valuable than where they are kept off; the manure and compost is more effectually mixed and worked than can well be done by hand, and besides, there is no expense of hired help attending the overhauling.

Manure of the various kinds of stock should be mixed, in order to equalize and more evenly distribute the fertilizing qualities, as the manure of different kinds and grades of stock varies in quality, some kinds being much richer in the elements of plant nutrition

than others; farmers fail in this respect as frequently as in any other. The manure of a full grown animal, high fed, will be much richer than that of the same animal poorly fed; and so of the horse than of the cow or young and growing stock; the sheep and pig are richest of all, because more concentrated. If hogs are kept on the manure, it is fined to a much greater extent than would be done by overhauling by hand. This manure, overhauled and further mixed by hand the last of winter, or in the early spring, soon comes into a suitable state for application to the soil, retaining all its elements in their integrity, and a single overhauling will bring it into a much better state than two or three where no hogs have been kept on it to work it over and add their excrements to its value.

It is to be preferred, wherever practicable, to use absorbents to take up the liquid voidings of the stock, and mix them with the solids as they accumulate, instead of saving them separate; the manure is in all respects better; the liquids furnish a degree of moisture essential to the proper fermentation of the manure, while the absorbents, if muck or the like, serve to temper the evolution of heat, preventing, in a great measure, if not entirely, the liability to firing. Plaster, or a solution of copperas, mixed with or sprinkled over the compost while overhauling, is excellent, as these serve to fix the ammonia and other volatile gases, thus saving a waste that might otherwise occur.

Some might say, apply the manures in their green or crude state to the soil, and let the work be done in the soil, and all this labor is saved; very true, it might be saved in this way, but the manure is very unevenly distributed, or is apt to be, in the soil, and the application cannot be made at the most proper time. The general object in manuring is to benefit the immediate crop more than an application in the crude state will usually do it; and the manure cannot be so finely mixed with the soil, which is an essential point in obtaining the greatest good from manurial matters. Green manures must undergo a decomposition, as before stated, before they can supply plant food; and in such quantities as are turned under, where applied broadcast, the change is very slow, and often circumstances are such that a season passes with very little benefit, apparently, accruing to the crop.

In composting or preparing animal or ammoniacal manures, they should not be mixed with such mineral or other matter as will tend to set free ammonia. Certain substances, like lime and wood ashes, having a strong affinity for carbonic acid, will elect that, and set the ammonia free, which passes off in the air, and is lost. These

substances are very appropriate to mix with muck and peat, as they serve to neutralize acids and promote chemical changes which greatly enhance the value of such matter as plant food.

In a former article I spoke of the waste and value of human urine, which I endeavored to approximate. That I estimated the value too high, has been stated by a late correspondent in this Journal, but that I made the error of estimating it as much too high as there claimed, I am not at present prepared to admit, after searching such authorities as I have at hand. In estimating the value of such wastes of fertilizers, we are hardly expected to take into account the inconvenience and cost of application, for, did we enter into all the items of cost, very few of our bulky manures would have the market value they bear. That urine is a valuable manurial agent, is seen by a glance at its components, they being urea and uric acid; free lactic acid, lactate of ammonia, mineral matters, mucus of the bladder, sulphates of potash and soda, phosphates of soda, ammonia, lime and magnesia, salt, sal-ammoniac, silica and fluoride of calcium. The fœces are also very valuable, and make a more concentrated fertilizer than most manures of the farm. I think the most economical way of preparing the liquids as well as solids is to use muck or some such absorbent to mix with them, for by so doing they are soon brought into an inoffensive and portable form, and a less loss is liable than if saved and applied in a liquid state, as it would often be found inconvenient to apply it at the right time, and if urine is allowed to stand a length of time, a decomposition takes place, and the most valuable part rapidly passes off in the air, whereas, composted properly, this is saved, and can be used at leisure.

Were every farmer, who has a farm and family, in our land, to provide a close vault to his privy, and a load or two of dry muck, loam, or even pulverized clay, and two or three times a week scatter a small quantity of this dry earth over the contents of his vault, and mix them, he would have an equal quantity of the most valuable poudrette, worth as much as the best market affords; and at comparatively no expense, as it is all prepared on the premises, with no extra outlay, if we except a little time. When the vault is filled, the contents, being dry, or nearly so, may be thrown into casks, and reserved under cover to be applied as needed. The saving and preparation of the night soil of the farm is certainly worthy of receiving more attention, as it forms one of our best and most concentrated fertilizers, rich in all the elements of plant food. Many object to utilizing it, from the disagreeableness of the manipulation

or prejudice, but would they but adopt some such course as the above, there would be little, if any, more offence in its manipulation than in handling the poudrette of commerce, and certainly less objection in the whole than in the single cleaning of the vault, where no absorbent or deodorizer was used, as is generally the case.

In the foregoing paper I have endeavored to point out the mode of preparing some of the varied manures of the farm, and in so doing have inadvertently repeated some ideas of a former article, for which I hope the reader will pardon me, as it is a subject which is of universal importance in connection with all good farming.—
W. H. WHITE, *in Cult. and Co. Gent.*

South Windsor, Conn.

Southern Grain-Growing—What Shall the North Next Do?—Beet Sugar.

In *The Western Rural* of Nov. 16th, in an article on the effect of Southern grain-growing on the Northwest, we showed the great change the industry of the South is passing through from raising staples—only cotton and sugar—to a more varied husbandry, not abandoning those staples, but raising greatly increased quantities of grain and provisions, and thus decreasing our market, not only South, but East and abroad as well. Cotton, of course, will still be raised in large quantities, but the present large and growing supplies from India, Egypt, etc., competing with the American staple, show that our “Cotton is King” no longer, and this will lead intelligent men in that region to look more to other means of profit. Thus the vast Southern market for the grain and provisions of the Northwest, will decrease, if not wholly end; and thus, too, we shall find the food they raise crossing our path to the seaboard and on the ocean.

As for our European, or English market, it is of far less consequence than is imagined, and our habit of looking to it so much has led to our prices being ruled by the fluctuations of crops and prices in distant regions greatly to our harm.

While England, with her twenty million people takes of us on the average about *half of one per cent.* of the grain she uses, Massachusetts, with a million people, relies on the West for at least *three-fourths* of her consumption. But in this market, too, we shall meet the South, for already the tide of Southern grain has flooded

up to Baltimore and Philadelphia, and will sweep northward in coming years with a broader flow.

But it may be asked, what of all this? Why prophesy evil without hope of remedy? We are not prophesying evil, but telling of a great and inevitable change, that the active and sagacious men of the Northwest may be *wise in time*, and thus reap profit instead of disaster therefrom.

We must rely less on markets abroad, either on the seaboard or over the ocean, for our grain and provisions, by building up manufactures in our midst. Of course, we should still have a large surplus, but thus can we be saved from our present utter and pitiful reliance on the chances and changes of foreign skies. We must cast about for some new products fitted to our soil, and sure of a market. And here comes in, timely and feasible, the beet sugar culture and manufacture.

An intelligent and sagacious Northern man informs us that in Louisiana, a few months since, a gentleman of experience and ability said to him, "Louisiana will raise wheat largely, but the Northwest will furnish us with sugar made from the beet in a few years." A singular assertion, at first thought, but let us look at this matter a little. We give a few facts on the past and present condition of of this rapidly growing business, and commend them to the careful attention of our farmers and capitalists.

From a little book of signal value are most of them gathered—"Beet-Root Sugar and the Cultivation of the Beet," by E. B. GRANT—and they gained by the careful personal observation of the author, an intelligent countryman who traveled Europe for this end.

A hundred years ago beet sugar was made in Prussia, in small quantities, and chemists reported its feasibility, but the yield was only one percent. and the culture very limited. In 1812, when the ports of Europe were blockaded, and sugar in France cost almost a dollar a pound, NAPOLEON ordered 100,000 acres planted to beets, and a large sum used for experiments. Thus, out of such necessity, and by his sagacity, the culture started again.

The yield of sugar grew to three or four per cent., alternate success and failure came, as to most new efforts, even those at last most successful, but the business grew and in 1837, some 49,000 tons were made in France, and other countries had engaged in it to a limited extent.

The imports of cane-sugar decreased, and the product of beet sugar grew, this result varying as taxes and tariffs on one or the

other were changed, but in 1843, the product was 28,000 tons, and the import of cane-sugars 83,000 tons, while in 1850, the product was 64,000 tons, and the import 46,000.

The colonial cane-sugar has a protective duty of about half a cent a pound, and thus has much advantage over the beet sugar, which stands on equal terms with the sugar of the rest of the world, yet in 1865-6, the French consumption stood as follows :

Colonial importations	-	-	-	-	-	76,103 tons.
Foreign	"	-	-	-	-	144,083 "
Beet Sugar	-	-	-	-	-	270,000 "

The last more than half, and much of the foreign sugar was refined and then reported.

Mr. Grant says:—"Except in the vicinity of French seaboard cities, no sugar is used but the beet, and the same is true in Germany. Not one ounce of any other is consumed in Paris, Vienna, Berlin, Dresden, Leipsic or Munich."

This table shows the growing product, and decreasing cost :

			1837.	1865.
Yield per acre of beets	-	-	12 tons	16 tons.
Price of beets per ton	-	-	\$3 00	\$3 25
Sugar obtained	-	-	4 1-5 $\frac{1}{2}$ ct.	7 $\frac{1}{2}$ cent
Cost per pound	-	-	7 3-16 cts.	4 cts.
Total French product	-	-	49,000 tons	270,000 tons

And we give the present product, as follows :

France	-	-	-	-	-	270,000 tons.
Holland	-	-	-	-	-	5,000 "
Austria	-	-	-	-	-	89,000 "
Zollverein	-	-	-	-	-	180,000 "
Russia	-	-	-	-	-	50,000 "
Belgium	-	-	-	-	-	30,000 "
Poland	-	-	-	-	-	14,000 "
Sweden	-	-	-	-	-	1,000 "
Total	-	-	-	-	-	630,000 "

The present production of beet sugar is estimated at 22 $\frac{1}{2}$ per cent., or nearly one-fourth of the total product of the world, and eminent London merchants said in a commercial report, in 1866, that "Europe would soon produce all her own sugar."

Some 70,000 tons were last year exported to London—a striking change from the time of the report of Achard, a Prussian chemist,

to Frederick the Great, in 1773, that sugar could be made from the beet; for, as he asserted, the British government then offered him a princely bribe in money to suppress that report, which he indignantly refused. * * * * *

Brood Mares.

Like begets like: * * * Who would ever expect the offspring of a Shetland pony to equal an Arabian for speed, or a Norman for bone and muscle? Still such expectations would be but a trifle more absurd than those entertained by many stock-raisers in the country. Probably horses suffer more by being bred from improper subjects than other animals; they are subject to many more chronic and transmissible diseases than other domestic animals; besides the meat barrel yawns to receive the decrepit cow, sheep or swine, but the disabled horse has no such final utility. As they become old and unsound, they are often changed from a valuable and well used servant, to a mere article for jockeys to practice their deceptions with.

Old mares quite often have a different fate from their used up brothers. A few days since I saw a man leading a pair of spavins, the heaves and four crooked ankles along the road.

"What will you do with that," I inquired.

"Goin to raise a colt," said he, "she's just as good blooded a mare as there is any where."

"Isn't that the mare that Mr. — had last year and raised a colt from?"

"Yes."

"She didn't have a very good colt last spring, I believe."

This was not a congenial subject—so the horse and fixings were led away. The colt of which I spoke was unable to stand until about a month old, and then all the good its pasterns did, was to prevent its worthless feet from getting lost, as they bent with perfect facility in any direction, and the poor thing hobbled along, using the end of its shanks or feet.

The idea of a good breeding mare aside from a good working mare is perfectly absurd.

The mare that can earn the most money, is the best to breed from, and, as a poor sound horse is more serviceable than one originally good, that has become unsound, so a poor sound mare is better to breed from than the most celebrated *has been*. Perfectly sound horses are really becoming scarce, and they will soon be

“clean gone” unless they are allowed to continue their species. Being in a blacksmith shop on a rainy day recently, several farmers, as is usual in bad weather, brought their horses to be shod. Out of eleven horses that I noticed, but one could be called sound. The remaining ten had no less than nineteen ailments—nearly two to each horse! There are about as many spavined as sound horses among those that I have any knowledge of.

* * * A farmer had far better let alone breeding from a mare which he knows to be herself a good and true one, if she be deficient in points, or in strength or action.

If she want size, bone, muscular development or form, it is better to let her go, than seek to turn her to farther profit by breeding from her, since the profit is extremely likely to prove a loss. An unproved mare of fine form and good temper, with plenty of bone, good constitution, and free from unsoundness or vice, is a better animal from which to raise stock than the toughest bit of mare's flesh that ever stood on iron, if she materially lack any one of those conditions.

“In choosing the brood mare,” says an excellent modern writer on the horse, though he is speaking of thorough-breds, “four things must be considered: First, her blood; secondly, her frame; thirdly, her state of health; and fourthly, her temper.

I consider it high time that raising these diseases was stopped, because it is inhuman—besides, it don't pay.—HANFORD WILKINS,
In the Am. Stock Journal.

Centreville, N. Y.

Preparing Corn Ground in Autumn.

J. A. Corbett writes us from Wooster, O., as follows:—“I have a field on which there has been nothing but timothy for two or three years. It is upland. I want to plant corn in it next spring. I also have quite a lot of manure which is not sufficiently rotted to use on land sown this fall, and which I want to remove from the barnyard before turning stock in. I had thought of two plans which I will mention. First. Spreading it on the field and ploughing it under late this fall, and working with cultivator in the spring before planting. Second. Hauling it out and putting it in one or more large heaps, and covering till spring. Please inform me through the Rural what you think of the above plans, particularly the first named? and if you think of anything better than either, I shall be obliged for a suggestion. Commenced farming last

spring, and want to fill up the barnyard—there is a hollow in the middle of it where the water stands—and start even.”

The first plan mentioned is not objectionable, if it is desirable in your case to fall plough, in order to head off the grub. If the manure is half rotted, however, we should prefer top-dressing the field with it after ploughing, and then cultivating it in next spring. Another way we think well of is to spread the manure on the sward this fall and defer ploughing until just preceding planting time. Manure lying on the surface during the winter and spring months will not waste unless by water in case the ground is very uneven. The rains and snows withdraw from it the soluble elements and give them to the soil, the grass starts early and vigorous in the spring, and *that* is of some consequence. If grubs are plenty in the land, there is no better way to avert their ravages than to feed them with plenty of grass ploughed under just before planting. In any case, we should not move the manure and heap it again this fall. Spread it on the ground unless it is so rolling that heavy rains will wash it away.—*Moore's Rural New-Yorker.*

Farm Accounts—Again.

It does seem, Mr. Editor, that our farmers are not men *in earnest*. The many discouragements and difficulties we have to contend with; the sudden and complete change of our labor system from the obedient, industrious slave, to the idle, improvident freedman; the unsettled condition of our country; the heavy tax on cotton and tobacco; and the scarcity of money, seem to have paralyzed our energy, and we are no longer men *in earnest*. The consequence is, farms every where going down; fences rotting; fields of arable land growing up in briars and bushes, or running away into galls or gullies; cattle and stock diminished in number and flesh; barns, stables and out-houses tumbling; gardens and orchards even uncultivated and neglected, and our very dwellings showing want of thrift and providence. Is it manly to sit down and “cry over spilt milk.”? Will this make land and meat and clothes for our wives and children? Have we farmers of the south no pluck? no manliness? Because we can't glide along in the good, old, easy way, keep up appearances and make “buckle and tongue meet,” and get out of debt, by selling a negro occasionally, must we give up? Never! Never!! The everlasting negro “has gone up,” and there let him stay in the bliss of freedom and filth and poverty,

and when we meet together, for conscience sake, don't spend all the time in talking of his idleness and his thievishness and his worthlessness, and then in bemoaning his loss, and crying that we are a ruined people. *We are not a ruined people.* We are an impoverished people, an oppressed people, a discouraged people,—*shall we be an unmanly people, a ruined people.* With a climate far superior, and a soil, naturally far more fertile, and all other advantages in far greater profusion, (see Gene. Wise's late speech,) than our northern neighbors have, shall we see their rich acres laugh with heavy harvests of waving grain and grass, while our own sunny fields laugh with nothing but sunshine and broomstraw? Shall we not learn a lesson from this comparison? Let us see what the difficulty is, and remove it!—let us see where the remedy is, and apply it. The fact was becoming patent before the war, that it scarcely paid, even with the cheap labor of the slave (the cheapest labor and the best the world ever saw,) to cultivate large surfaces of impoverished land. There needed no book-keeping, nor accounts to show us this. Experience was teaching us this, slowly but surely. And a far more bitter experience is teaching us now rapidly and fatally, that with the costly labor of the freedman, (the meanest and costliest labor there^d ever was,) the same system pursued, as we are pursuing it, will indeed hasten us to want and ruin. We must change our tactics, or we are lost. We are living under new times, and a new order of things, and we must appreciate this difference. We must lay aside our old habits, and old ways of thinking, and of doing things. If we can't *keep up* our farms of a thousand acres, we must sell, or rent, or give away, or turn out to the commons, until we can keep up our farms of five hundred, or two hundred, or fifty acres: and what we lop off in breadth of surface, make up in depth of tillage. Who can keep up a farm of five hundred acres with *no labor*, and *no Capital*? Who can't by using his surplus land as capital, gradually and surely bring up and cultivate with system and profit forty, or sixty, or a hundred acres of his now large and wasting farm? We must reduce our surface, and increase our manure heaps; we must improve our stock, live more within ourselves, curtail our family expenses, make close calculations. We must depend less on the hoe, and more on the plough,—must employ less manual labor, and more horse power and machinery. We must look after our own matters ourselves and not entrust them to hired agents—must feel and act out the principle that labor is honorable and idleness disgraceful. We must adopt, for a time at least, the cultivation of such crops as grow best with the smallest amount

of labor—the grasses, small grain, Indian corn, cattle, hogs, and finally, Mr. Editor, to come to my text at last, we *must* keep a strict, and fair, and full, and accurate account of all expenditures and of all receipts; we *must* add up and balance those accounts, and find where the losses are, and where the profits are; and what crops pay best, and what systems of culture, and what manures, and what kinds of labor are the cheapest and best. But most of us don't know how to do this. I must confess, freely and frankly, that I do not; and this is why I am writing now—not with any expectation or hope of saying anything to “enlighten your readers,” but with the humble hope that I may elicit from you, or some of your readers, more experienced and intelligent than I am, a plain and simple formula, which will serve as a basis or general guide for an easy and systematic method of keeping farm accounts. Can't you do this for us, Mr. Editor? I think you can—and better, too, may-be, than any one else can. We can keep, most of us, a “sort of an account” with our neighbors, and with one another—charging such articles as we sell, and crediting such as we receive in exchange; and at the end of the year add up and subtract, and see how matters stand between us. But when we head our page with “Plantation, in account with Josiah Clodhopper,” how must we proceed? There are so many little transactions occurring daily between the farmer and his plantation, he doesn't know where to begin: he doesn't know what to charge and what to leave uncharged, what to credit and what not to credit. Must he have a separate account with his horses, his cattle, his hogs and his sheep; or must he charge them all to the plantation, giving *it* credit for his colts, his beef, and pork, and mutton, and leather, and wool? Must he have a separate account with his tobacco, his corn, wheat, and oat crop; or must he make a lumping business of it, and charge the plantation with everything he gives it, and credit the plantation for everything he receives. To one who has no system, who has seen no system, of farm accounts, who has never been in the habit of keeping accounts, the difficulties at the outset seem insuperable, and the whole thing is frequently thrown aside with disgust. This is why so few farmers make the attempt. By having a separate account with our horses, cattle, &c., charging them with the straw, shucks, oats, corn, &c., they consume, and the attention and pasturage we give them, and giving them credit for their labor on the farm, their manures, their increase, the beef, pork, mutton, leather, wool, &c., we receive, we may perceive at a glance which stock is most profitable. By keeping an account with our different crops,

we may, in the same way, see which crop pays best. But will not this make our accounts too complicated? Or would it be best to keep only one account with the plantation—charging it with all the capital invested, with all of the stock and plantation tools on it, with all the manures applied, and labor expended on it, and giving it credit for everything produced, for increased value of the stock, for increased value of the land, &c., &c. I ask these questions hoping that some discussion may be elicited which will throw some light on the subject.

Very truly your friend,

FARMER.

Granville Co., N. C., Dec. 12, 1867.

P. S.—The first charge against my plantation for the next year will be—

1868.

Jan. 1, To wheat crop seeded Oct., 1867, as follows:

To 53 bushels seed wheat, at \$2,	- - -	106 00
To cash paid for fallowing land, 2 hands 15 days,		30 00
To finding 2 hands 15 days,	- - -	15 00
To cost of 3 tons Pacific guano,	- - -	244 18
To cost of 2 barrels lime,	- - -	5 96
To cost of 3 bushels salt,	- - -	4 00
To cost of sowing and draining, 7 hands 10 days,		31 50
To finding 7 hands 10 days,	- - -	17 50
To work of 4 horses 15 days fallowing,	- -	30 00
To work of 6 horses 10 days sowing and draining,		30 00

Total cost of sowing 53 bushels wheat, \$514 14

Will it pay? I am afraid not. But if I make a fair crop (and it promises well now), and get a good stand of grass and clover, I shall lose nothing by the operation. My greatest doubts are about the Pacific guano, having never used it before.

I float my seed wheat in a strong brine, which takes off all of the shriveled and faulty grains, and many of the impurities which may be in it; and then roll it in lime, using about one barrel of lime to 30 bushels of wheat. I think this is a sure preventive of smut, and the lime, too, though used in such small quantities, adhering to the moistured grain, and crumbling immediately around it, as it lies in the soil, acts as a fine feeder to the young rootlets first thrown out, and gives the plant a vigorous growth, thus the better preparing it to resist the winter freezing.

Truly, &c.,

FARMER.

Correlation and Conservation of Force.

APPLICATION TO THE FOOD OF ANIMALS.

The muscular force by means of which a man does a piece of work, is derived from his food by virtue of the great law of the correlation of force—the chemical force with which each atom is associated, being converted into vital force or muscular power. But the quantity of force which may be so derived is always strictly governed by the second law—the conservation of force. Thus the chemical force which is associated with the elements of the food can be resolved by the animal economy into muscular force, and this muscular force will always bear a definite relation to the amount of force contained in the food, provided the elements with which it is associated are available for the purposes of the animal economy. Hence food is force and force is food. This is well illustrated by the contractors on some of the European railways, who always select the greatest eaters as the most powerful workmen. This reduces the question to its most practical form, the animal (human and other) being regarded as a mere machine for converting food into muscular power.

Some time ago, a writer in the *Co. Gent.* proposed to make the bullocks earn at least a portion of their living while being fattened, by making them work. To a certain extent, the suggestion is no doubt good, but beyond certain *very* narrow limits, it would fail. Every pound of food used to produce force is so much subtracted from the amount which would otherwise go to produce fat. The limit in this case would be the extent to which exercise is necessary to maintain good health. Thus it is found that oxen in boxes can be fattened more economically than when tied up—they having more exercise and less worry. But if the animals were in good health, and could be fatted before their health deteriorated, the less exercise the better; as is seen in turkeys, which are fattened most economically when kept in darkness and perfect quiet.

Again, it has long been known that shelter and warmth are equivalent to food; that if an animal be exposed to the influence of inclement weather, carbon must be burnt either in the lungs or in a stove, and here is the first substitution of the result of the simple chemical action of carbon and oxygen for the more complicated processes which are carried on in the animal economy. But this substitution need not stop here. It need not end with the mere outer applications of chemical force to the sustenance of animal heat; for if it be found that, in this instance, coal, which costs \$5 to \$15 per ton, can be substituted for corn, which costs \$30 to \$40,

we can go a step farther, and by heating the food, by means of coal, we save the animal just as much work as would be required to elevate the food to this temperature by means of animal heat. But we need not even stop here. It is well known that after ingestion, the food has to undergo certain chemical changes, and to effect these changes demands force. Now the heat of burning coal, when properly applied, produces effects upon the food which resemble the operation of digestion, and can, in a measure, be substituted therefor. Let us then cook the food, and we again do that work with a \$5 or \$10 article which would otherwise demand the use of one costing \$30 to \$40.

But even in the food itself we will find that, in different varieties thereof, different elements are associated with very different amounts of force. Thus, we all know that charcoal, although unquestionably the great heat producer, is worthless as food for animals until it is chemically organized in useful compounds. But let it be presented in the form of starch instead of charcoal powder, and instantly the animal is able to appropriate it, and also to appropriate the force with which it is associated. And this evidently does not depend upon the mere question of *solubility*, as starch, until it has been changed, is quite as insoluble as charcoal.

To give another and more striking instance. It has been supposed that the tissue-making power of any kind of food depends upon the quantity of nitrogen it contains, and that its value may therefore be determined by chemical analysis. Upon this principle, tables have been constructed, showing the agricultural worth of different articles of forage for domestic animals. But when we consider the physiological effect of the allotropism of bodies, these tables are not of the use supposed. Take the case of gelatine as an example: this, though a substance abounding in nitrogen, possesses no tissue-making value, but in reality belongs to the calorific (heat making) class, and therefore its administration in the sick-room, under the various well known forms of jellies, soups, &c., is altogether deceptive as regards any nutritive power, since it undergoes speedy oxidation in the system, and the products of its change escape by the kidneys and the lungs. (Draper.)

On the other hand, albumen, which contains nearly the same percentage of nitrogen that is found in gelatine, is well known to be a most nutritive substance.

The value of food is not only dependent on the occurrence of certain chemical elements; they must also be present in certain allotropic states, and allotropism unquestionably depends upon the action of force.—J. P., *in the Cult. & Co. Gent.*

How to Secure White Labor.

EDITOR PLANTER AND FARMER,—It is apparent to every intelligent man that in the present disorganized and demoralized condition of negro labor, there is no prospect of fully restoring agricultural prosperity in this State without a large addition to the white laboring population. Fortunately, this may be done at comparatively small cost and trouble. Our very poverty will be the means of resuscitation. In former times, the luxurious and wealthy South supported the busy millions of the Northern States in their diversified branches of industry. Hundreds of thousands of foreigners came to the United States every year and found employment in the North, and a market for their products in the South. The war, with its devastations, has left us but poor purchasers of manufactures. The effect is visible in the North. Hundreds of thousands of poor people are out of employment there. Starvation stares them in the face. Unlike the negro in our midst, they are not fed and clothed by the Government, but must work or starve. We can give them work, and, in turn, their labor will restore us to prosperity.

There are three classes of people we need to come amongst us: First, we want farm-hands and domestic laborers. Secondly, small farmers, with enough capital to secure fifty or a hundred acres of land at a low price, and improve and cultivate it with their own hands. And thirdly, large capitalists to develop our mines, establish manufactories, and build up trade and commerce. To secure any large increase of our white population, these three classes must be induced to come in the order named. The man of large means will not invest his money here till he feels assured that he can procure the labor necessary to make the investment profitable. He will not rely upon the chances of bringing that labor from a distance, but must find it here at his command. Therefore, the first step for us to take is to secure laborers in abundance.

In the present lack of employment in the North, this can be readily effected if our farmers will go about it in the right way. The first thing to be done is to prepare for the comfort of these people. Being of our own race and blood, they are of a higher order of laborers than the farmers of Eastern Virginia have been accustomed to, and must be provided for accordingly. A negro cabin, with its dirt floor and stick chimney, its clapboard roof and paper windows, located in the corner of a dismal old field by itself, or grouped with others like it amongst the stables and cowhouses in

rear of the proprietor's residence, is not an inviting habitation for an intelligent white man, with wife and children dependent upon him, however poor he may be. The white cook or chambermaid, though her services are humble, has very properly too much pride to be lodged in a loft or to sleep on the floor before the kitchen fire.

A man worth having on the farm has character and intelligence enough to desire a comfortable, neat and attractive home. His house need not be large nor expensive, but it must be pleasantly located, conveniently arranged, and surrounded by an acre or so of good garden land properly enclosed, convenient to water, and if practicable, near a skirt of woods, where fowls can run at large without mischief. With these surroundings, the daily laborer has his toil lightened by seeing his wife and children all contributing to the comforts of his home.

No farmer in Virginia would have the slightest difficulty in procuring all the hands he needs at from \$10 to \$15 a month—and one of them will do the work of two negroes—if he could offer to each married man such a snug little home as I have indicated: and with two or three such on his place, he could get as many single men as he needs, who would board with the cottagers, if it was not convenient for the proprietor to board them.

It may be objected that this involves too much expense in the present impoverished condition of the country. True, it will cost something, but the means of providing these homes for laborers are in the hands of nearly every land owner east of the Blue Ridge. They have nearly all too much land. Let every one who has surplus land sell off a few of these little farms, and with the proceeds of sale he can provide houses for his laborers. No matter how low he sells, it will, in the end, be a good operation. He will thus secure several white families around him, in place of the idle, vagabond, thieving negroes, who will not work themselves, but expect to live on the rations of the Bureau, or from the proceeds of nightly raids on the neighboring corn-cribs and smokehouses of the whites.

I would advise, too, every man, as soon as he can, to break up the nests of thieves found in every negro quarter. To have no idle vagabonds about his premises, but, if necessary, pull down the cabins of the idle and the vicious, and get rid of them by forcing them to seek shelter elsewhere. Virginia will be a white man's State. In a little while, she will have no place on her soil for drones and idlers. All must work or emigrate. I think the negro will have to emigrate and make way for the industrious thousands

of our own race who will soon be pouring in upon us if we do what common sense suggests as necessary to bring them here.

A VIRGINIAN.

White vs. Negro Labor.

A gentleman from Charlotte county, Va., informed the writer, at the late Conservative Convention in your city, that he had made a comparison of the two the last year. He furnished 13 negroes with mules and implements and provisions to raise a crop, and at the same time two white men. The negroes raised 94 barrels of corn, 7 stacks oats, and 5,000 pounds tobacco. The two white men, with a little negro girl to cook for them, raised 112½ barrels of corn, 10 stacks oats, and 8,000 pounds tobacco. The negroes returned the mules in a poor, emaciated condition. The white men turned theirs over fat and sleek. Negroes worked 4 mules, whites 2. The white men were raised in that section. This year the same gentleman will work white men exclusively. To show the improvidence of the negro, he said the cart and mules were idle and at their service to haul wood, yet they preferred to burn rails.

AN AUGUSTA FARMER.

A communication appeared in your October number of "The Farmer," headed "Hornless Cattle—A New Kind of Clover," &c., over the signature of "One of Your Subscribers," Charlotte, N. C.

I will be very glad to learn something more of this clover, and to test its value in this section. Please request "One of Your Subscribers" to inform your readers what his address is, and also if enough seed can be procured to compare its relative value to other varieties of clover.

GEO. E. HARDY.

Blacks and Whites, Nottoway Co., Va., Nov. 30, 1867.

"When wealth is acquired by steady and laborious exertion, in mercantile or professional pursuits, the very process of its acquisition is fit discipline to ensure its proper employment; but when rank or riches are gained without probation, the sudden eminence is intoxicating and becomes the basis of a heartless aristocracy that is at once dangerous to private morals and public liberty."



Horticultural Department.

Grapes and Wine.

It is truly encouraging to see the rapidly increasing interest which is being manifested by our people in this important branch of industry. Not only have many parties from the North come among us and purchased land for the purpose of cultivating grapes, but numbers of our own farmers have entered into this pursuit, more or less largely according to their means, and there is every prospect that in a very few years Virginia will take rank among the first wine-producing States of the continent.

Perhaps no other State presents so many natural advantages and facilities for the successful culture of this fruit as does our own, possessing, as she does, almost every variety of climate and soil. In some portions, the most tender and delicate varieties grow and flourish in the open air, while there is no portion in which the hardier and native varieties do not yield abundantly. The Norton, the great wine grape of the west, and soon to be the great wine grape of the country, originated in her borders, and it is at its native home that it reaches a perfection which it nowhere else attains. With the advantages she possesses, it is eminently proper that Virginia should be a grand wine-producing district—and it will require but a little energy and attention on the part of her people to make her such. The experience of those who have already tested the profitableness of grape-growing and wine-making in this State is most encouraging, and establishes their profitableness beyond a question.

As much has already been written upon grape culture, we will not touch upon it at this time, but confine ourselves to some suggestions as to the varieties best suited to general cultivation, and to some remarks upon the general economy of the production of wine.

At the head of the list of wine grapes for this State we place the Norton. It is indigenous to Virginia, grows vigorously, bears abun-

dantly and regularly, and is entirely free from rot, mildew or any disease, and even in the Western States, where it does not thrive so well as it does here, its wine takes the first rank among the red wines. We think that Norton is to be the distinctive wine of Virginia, and destined to attain a popularity far exceeding the Catawba of Ohio.

Next after the Norton, we place the Concord for hardiness and profit, but not for quality. It will only make a cheap wine, but its yield is so great and certain that, even at one-third the price of the Catawba, it will be more profitable.

The Catawba, in some sections, is still worthy of extensive cultivation. Along the sides of the Blue Ridge mountains it has, so far as we are able to learn, been free from disease and has yielded properly, but in Eastern Virginia it is subject to rot and mildew. Where it does not suffer from these diseases, we advise its use, as it makes, beyond doubt, the best light wine that has ever been produced on this continent.

The Delaware, we fear, is too liable to disease, but not being prepared to speak positively with regard to it, we would advise our readers to test it before planting largely.

The Ives promises to succeed as well here as it does in the West, but with this, as with the Delaware, it will be better to give it a trial before risking too much on its merits.

Let our readers plant Norton, Concord and Catawba, in quantity. They will assuredly repay them. And let them give all other varieties a fair trial, as it is possible (not probable, we confess), that some may be found more desirable than these.

It is a mistaken idea that we must make a Catawba, or a Champagne, or a Port, or any other given kind of wine. Such is not the true policy of wine-making, but, on the contrary, our endeavor should be to produce a wine from an indigenous grape whose own merit will recommend and make it popular. This can be done from the Norton, which gives a wine unsurpassed by any of the dark wines of Europe or America. But successfully to establish a reputation for any wine, organized action is necessary to secure uniformity in the standard. If individuals manufacture their own grapes into wine, we will have as many different grades of wine as there are grape-growers, and none of them will ever attain more than a local reputation. Manufacturing companies, however, operating on a scale sufficiently large to enable them to purchase and manufacture into wine all the grapes grown in large districts, can easily establish and maintain brands which will soon become popular and profitable.

Hot Beds.

Although, as a general rule, we think it best to defer making hot beds until February, still there are some seasons when it may profitably be done in January, and, in any case, a few suggestions may not be amiss at the present time.

The majority of persons, even among those who have every facility for erecting hot beds, are apt to neglect them, either because they think them too troublesome, or unprofitable, except in the hands of professional gardeners. This is a great mistake. Every one who has a garden should have hot beds sufficient at least to grow vegetable plants, if not to grow the early vegetables themselves.

Half a dozen sash fitted on a wooden frame will grow cabbage, tomato, lettuce, pepper and egg plants enough for a large family, and will require but little care, which will be far more than compensated by having early vegetables. But in addition to these plants, lettuce and radishes may be grown for the table in the same kind of beds, and are very desirable in the early spring months before outdoor vegetation is advanced.

The operation of making these beds is very simple, and has heretofore been described in our pages. It is in brief as follows: Make the bottom of the bed of fresh stable manure, and tramp it firmly until it is quite solid and about eighteen inches deep, making the width and length to correspond with the sash and frame; put on the frame and then cover the manure with light rich soil five inches deep. Rake it over smoothly and sow the seed. Cabbage and lettuce should be sown broadcast—tomato, pepper and egg plants in drills. Water lightly, and keep the sash closed in cold weather, but open them whenever warm enough to admit of it. Cover the sash at night with straw, old carpeting, pine tags, or anything that will protect from frost.

When the tomato and egg plants have attained the height of two inches, they should be transplanted into other hot beds, where they may grow until the weather is warm enough to allow them to be planted in the garden.

Cucumbers and melons may be forced in hot beds of the same kind as those described above, but it will be necessary to add a lining of manure on the outside of the frames when the heat begins to die out, so as to preserve the proper temperature.

“One ounce of discretion is worth a pound of wit.”

Asparagus Beds.

As these are a "life-long institution," it is very important that proper care should be taken in their construction, and though it may be true "that all's well that ends well," still there is no possible chance of an asparagus bed's ending well if badly begun. The following method of preparing and planting the beds will, we think, be found as economical and profitable as any that has the merit of being a good one.

Dig out a trench four and a half feet wide and sixteen inches deep, and as long as desired; fill in with the earth taken out and manure or rich compost, in equal proportions, to within four inches of the surface. Plant the roots in rows one foot apart, and the same distance apart in the rows, then cover with the virgin soil and compost until the bed is level, and let it stand until the succeeding fall; at which time put on two inches of manure and earth, rounding the bed so as to be higher in the middle than at the sides.

The second spring a little asparagus may be cut from the beds, but they should not be cut closely until the third year. Give a dressing of salt every spring and of manure every fall, and the beds will last half a century.

Make the beds as early in the spring as the weather will permit.

A New Apple.

We have before us some specimens of a seedling apple grown by our friend, J. Ravenscroft Jones, Esq., of Brunswick county, which is said to have originated in the farm of his brother-in-law, Dr. Mason, of that county. It combines every quality requisite to a *first class* winter apple.

In size it is from medium to large, of a beautiful yellow color, shaded on one side with light russet dots, flesh white, crisp, juicy and rich, flavor rather sweet. At this season it is very firm and sound, and from its appearance, we should pronounce it a long and sure keeper.

From the resemblance it bears to the Albemarle (or yellow Newtown) Pippin, we conclude that it is a seedling of that apple, but it far surpasses its parent in beauty and quality. This is a very high encomium, but it is a merited one, for we have never seen an apple combining so much beauty of appearance with so much richness and other desirable qualities. We should be glad to have a fuller his-

tory of its origin from Mr. Jones, and do unhesitatingly recommend its extensive cultivation.

Will Mr. J. do us and the public the favor to send us for publication a full history, embracing a minute description of the growth and general habits of the tree, and at the same time give the apple a name.

It is undoubtedly a Pippin, and should be so designated. Shall it be the Brunswick, or the Mason Pippin? Mr. J. shall decide.

Pruning Pears.

BY "PALISADES," NEAR BALTIMORE, MD.

The great interest taken in the cultivation of dwarf pears all over the country by thousands of amateurs, received many times a check by the indifferent results, after years of expectation followed by disappointment. To a part this may be traced to the misunderstood rules of pruning, simple as they are, and may be set down as two-fold. First, every dwarf pear tree ought to have by the pyramidal form one, and by the rose or bush form more main leaders elongated the height of the tree, and as many side leaders as there are side branches of the tree. These leaders must be left unchecked in Spring and Summer, and topped to one-half, more or less, in the first part of August.

All the upper side shoots on these leaders are to be transformed in fruit-bearing limbs or spurs during Spring and Summer, as soon as they reach a length of over four inches, by pinching the upper end of it to about two or three inches. If that pinching is done too early, or before the lower parts of the shoots have got some hardiness, then the remaining ends will dry up and show next season little dry sticks; the dormant eyes on the sides of them will, most times, push out again in the following seasons, but in weaker shoots. The shorter shoots on the lower part of the leaders must be left untouched and will form by themselves into spurs two years after. By this way the fruit spurs are formed near the lower part of the tree and extend with the growth to the upper part and outside, while by any other pruning, the pears will mostly be formed on the outside and the top of the trees. By allowing the leaders an unchecked growth, the pinching-in of the side shoots will not interfere with the healthy development of the tree. Between standard pear trees, I found in a plantation of six hundred, Seckel most affected by blight, after that kind Dix, Tyson and Buffman, less Bartlett and Clairgeau.—*Gardener's Monthly.*

Our Native Wines Abroad.

We clip the following extract from the proceedings of the American Pomological Society, as published in the *Horticulturist*, and call our readers' attention to the standing of our red wines abroad:

During the session of the Society, Mr. Husman desired to hear from the President some account of his experience with our native wines during his recent visit abroad.

The President said that on his arrival at Paris from Washington he was elected one of the Commissioners. He found that the American wines had been passed by the committee. A single bottle of Catawba was taken as a sample of American wines. He endeavored to obtain a revision, but failed. He then moved for the appointment of a committee of the Universal Exhibition to report upon the growth of the vine, horticulture, and pomology. The committee was appointed, consisting of Americans, of which he was a member. The committee found that samples of American wines had been seriously injured by being placed where they were too warm.

In examining some of the wines from Hesse Darmstadt, the committee found them inferior to ours. The owners on tasting ours said, If you can make such wine as this, you have no need of ours.

He said the best American wines would compare favorably with those of the Rhine. We were taken to the famous Johannisburg, and were shown their best wine, and had never before tasted such excellent wines. These favorite wines are sold at one pound ten shillings per bottle to the Emperor of Russia, the Duke of Cambridge, and other nobles who could afford to pay for them. These wines would cost in this country about \$15 per bottle. We cannot raise such wines, but have some almost as good.

They examined the American wines, and the Europeans expressed their approbation of the * Virginia [Norton] Seedling and the Ives. A gentleman said these are the only wines that could have withstood the test to which they were exposed. Persevere in raising your red wines—they cannot be surpassed.

At Johannisburg we examined the soil, and found it apparently unfavorable for grape-raising. The whole surface is like a cake of burnt clay, and had to be broken up by a large two-pronged hoe. Only 60,000 bottles were raised on this spot.

Mr. Barry, who accompanied the President to Europe, was called

* Let Virginia Seedling be dropped and let "Norton" henceforth be the distinctive name for this variety of the grape.—ED. SO. PLANTER AND FARMER.

to state his experience. He said the Johannisburg grape was a Reissling. The fine grapes are all raised on elevated ground, the level ground always producing inferior wine. The vineyards are renewed once in ten, fifteen, or twenty years. We saw fields from which the vines had been removed and broken up preparatory to renewing the vines.

A Profitable Wife.

I have been married twenty-two years. The first four years before I was married, I began farming with 250 acres, in the Blue Grass region, Ky. I handled cattle, hogs sheep and horses—principally the two first named—and lived, I thought, tolerably economically; spent none of my money for tobacco in any way; never betting a cent or dissipating in any way, and yet at the end of four years I had made little or no clear money. I then married a young lady 18 years of age—who had never done any housework or work of any kind, except make a portion of her own clothes. She had never made a shirt, drawers, pants or waistcoat, or even sewed a stitch on a coat, and yet before we had been married a year she had made for me every one of the articles of clothing named, and knit numbers of pairs of socks for me—yes, and mended divers articles for me, not excepting an old hat or two. She had also made butter, sold eggs, chickens, and other fowls, and vegetables to the amount of near \$600 in cash, at the end of the year, whereas, during the four years that I was single, I had never sold five cents worth—besides making me purely happy and contented with and at my home. And so far as to making of money, we have made money clear of expenses ever since we have been married, in everything that we have undertaken on the farm, and she has made from \$350 to \$500 every year, except one, during the time, selling butter, eggs, and marketing of different kinds. My yearly expenses of fine clothing, etc., before I was married were more than my yearly expenses were after I was married, combined with the expenses of my wife and children, and our farm has increased from 250 to 500 acres; and I believe that if I had not married, it would never have increased but little, if any, and I have never been absent from home six nights, when my wife was at our home, since we were married, and her cheeks kiss as sweetly to me as they did the morning after I was married.—*Cor. Country Gentlemen.*

A Word on Dahlias.

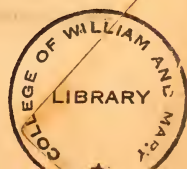
A friend was expressing his surprise, a few days ago, that a choice collection of dahlias which he imported from Europe in the spring of 1866, and that had bloomed splendidly that year, have many of them this year failed to grow, and the rest prove to be nearly all alike and a common red variety. He said the white and yellow ones had degenerated, and all were uniformly the above-mentioned red.

I gave that gentleman the following explanation, which I submit to the readers of the "Horticulturist." In order to propagate the new varieties of dahlias, and make hundreds of plants where only a few would be propagated by the usual methods of separating the tubers, or making cuttings from *forwarded* growths in early spring, the European raisers of dahlias graft them on roots in winter, and to that effect use roots of the strongest growing varieties. To make those grafts, only one bud is sufficient, so that when the owner of a good variety desires it to remain scarce, for pecuniary reasons or other, he uses scions with only one bud at the top; those plants grow and bloom as in the ordinary way, but in the fall everything is gone of the new variety, and even the tubers, except those (tubers), the upper part of which has been used for stocks, and which may have yet some dormant buds; the same when planted afterward by the uninitiated produce the flower of the stock and not that of the variety grafted on it.

When, instead of a scion with a single bud, one with a second bud at the base is used, inserted into the stock the lower bud grows into roots which naturally reproduce flowers identical to the variety of the scion.—E. FERRAD, *Detroit, Mich., in the Horticulturist.*

To Preserve Peas from Weevil.

In regard to "trouble with the Pea weevil" with your correspondent in East Tennessee (spoken of in last number of "Monthly"), I would state that the New Jersey truckers, or market gardeners, in the vicinity of Philadelphia, where early Peas are raised extensively, prevent the Pea weevil from eating its way out, and consequently the destruction of the germ, by sprinkling a little spirits of turpentine over the heap after winnowing, and stirring well before putting in granary for use the following spring. A quart of turpentine being sufficient for fifteen or twenty bushels of peas.—J. S. COLLINS, *Moorestown, N. J., in Gardener's Monthly.*



Our Rose Beds.

From where we now write, the summer has been one of unusual drought; and having visited many gardens, we find the one where we are now staying with its roses giving daily an abundance of blooms, while many gardens kept in much higher condition have hardly a bloom to show, although in some their collections embrace dozens of varieties to our friend's one. The secret of this continual summer bloom, our friend says, consists simply in the fact that every rose bed should be re-set every year, and a bottom at depth of eight to twelve inches be supplied with fresh turf, or a foot deep of coarse barn-yard manure well chopped as it is put in. He prefers and only uses the turf sod.—*Horticulturist*.

Root Pruning Trees.

If the ground is not frozen deeply, this month will do as well as November for root pruning pears or any tree of which it is desirable to check the coming season's growth. Not only should the side roots be cut, but you should dig down and cut off the lower or top roots. Some writers claim this as a preventive of blight; we think it requires further experiments to prove it of any real value in that case.—*Horticulturist*.

THE *Gardener's Monthly* gives the following facetious "hit" at one of the many horticultural humbugs of the day. Will our people never cease being the dupes of such miserable "charlatanism?"

"*Extra Early Tomatoes*.—A correspondent enquires whether we think it possible for any tomato to make such a "big jump" over all others at once, as to ripen "thirty days earlier than any other variety." Certainly we do, and more too. We have some in this locality not merely thirty days, but two hundred days in advance. They are already, October 20th, just coloring. By using this celebrated variety the fruit ripens actually *before the seed is sown*. Price \$10 per packet of ten seeds."

NORTON'S VIRGINIA AND IVES' SEEDLING IN NEW JERSEY.—A correspondent from Atlantic county says: "The season has been very unfavorable to grape growing in this part of New Jersey. Mildew and rot have fearfully damaged our vineyards, the Catawba is nearly all gone. Concord is damaged, but the reputation of the Virginia Seedling has proved true, as a lot of bearing vines that I have, shows. There is not one faulty berry among them, and the leaves that suffered somewhat in Spring have entirely recovered. This cannot be said of the so much celebrated Iona.

Mechanic Arts.

The Influence of Inventions on Mental Culture.

The most apparent, and perhaps the most important object sought to be attained through the agency of new inventions is to provide for the increased production of wealth, the lightening of manual labor, and the promotion of the material comforts of mankind; but while these may be considered as the most immediate ends to be secured by researches in practical science or the development of new ideas in mechanics, there is another, and in some aspects of the case a higher, result springing from the inventive progress characteristic of the present age; and this is the placing within the reach of the masses, of those of moderate resources or limited leisure, the means of culture in matters of art and esthetic taste. Prominent among the more palpable illustrations of this are those afforded by improvements in paper manufacture and in printing machinery, together with the various accessories thereof, by which the production of books has been cheapened until the works of historian and poet and novelist may be found in the lowliest household in the land; and the perfection now obtained in wood-engraving, which enables the periodical press to furnish, for a few cents, portraitures which, in a former age, would have been almost unattainable. From the low cost of the printed page, the eager and aspiring mind of youth, the battling brain of manhood, or the intellect in the calmness of waning years, may, in all the widely differing grades of society, draw strength and nutriment from the most cultured and elegant writers of the world, and be lifted to a far higher level than they could otherwise have known; while the work of the engraver, guided by taste and talent, slowly it may be, but none the less surely, educates the people to higher ideas of excellence in art, and causes them to judge of elegance of form and proportion, as well as ideality of design and expression by a higher standard. Another and not less striking example of the refining tendencies evolved by the progress of invention may be found in the history of the pianoforte and the organ; the former, after having traced its long history from the harp of old Grecian times, the virginals of the days of good Queen Bess, and the harpsichord of a later age, to the great improvement of Erard, has within a few years past been perfected until it breathes in the parlor a music softer than that which

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solaced the solitude of Apollo or enlivened the court of the famous queen; while the organ, in its various forms of cabinet organ and melodeon, has found its way into the farm-house and the cottage, cheering with melody the resting hours of the sons and daughters of labor, and bringing to them a higher appreciation of the worth and influence of music than they could possibly have gained from the ruder tones of the old-time instruments.

We may speak, too, of the photograph, the manifold applications of which enable it to possess as great a bearing upon the development of taste, the diffusion of information, and the refinement of feeling, as any other of the more recent discoveries. By its use the masses are made familiar with the famed scenery of distant countries; have outlined to them in the cheapest form the beauties of painting and sculpture; and, more than all, have placed within their reach the portraits of friends and relatives, finished with an accuracy of similitude and correctness of expression beyond the power of the most gifted painter; and who shall estimate the quiet agency of the sun-picture in awakening to increased culture the refined and susceptible characteristics of the popular heart and brain?

Many other illustrations might be given of the agency of inventions in the development of taste and cultivated feeling; but wherefore should we labor to prove at length what every thinker must admit, that beyond the merely material progress for which the inventor hopes, and the reward of fame or wealth which he may justly deserve, there lies a nobler aim and a brighter guerdon in the attainment of a higher standard of taste and refinement in all that relates to art and mental culture among the masses of human kind?—*American Artisan.*

Husking Machine.

Every farmer who grows corn knows that one of the most tedious operations connected with the crop is the husking. It will be surprising to some to know that a machine is now invented that will husk corn from the stalk in the most perfect manner, and at a most rapid rate. The American Corn Husker is a most wonderful machine, and will supply a grand desideratum. It is a very simple machine. It has an inclined table, on which the corn from the shock is placed. The ends of the stalks, entering between two corrugated rollers, are drawn forward until the ears are reached,

which, coming in contact with an iron break, are broken off in the place Nature intended them to be broken, and fall upon two endless aprons working in opposite directions. Here the husk is caught and rolled or twisted off—the husks falling in a pile by themselves, and the corn going into another. So, in the operation of this machine, we have the stalks, husks and corn, all separated, and in different piles. This machine was patented by Scott & Farnum, of Blackstone, Mass., in February last, and costs \$75. It is a most valuable machine, ranking in its labor-saving capacity with the reaper and mowing machine. Its merits are not alone in husking the ear rapidly and perfectly, but by separating the husks, they may be turned to good account for a variety of useful purposes.—*Journal of the New York State Agricultural Society.*

Osborn's Dumping-Wagon and Self-Acting Brake.

This is an invention of Prof. Osborn, of Hamilton, N. Y. The box is upon rollers, and is operated by an expanding and contracting reach. In dumping, the horses are backed, which throws the forward wheels and load backward upon the rear axle, so that it can be at once discharged. The brake is a very ingenious contrivance, simple and powerful, and may be applied to any wagon. The invention is new, and promises to be valuable.—*Journal of N. Y. State Agricultural Society.*

Household Department.

How to Make Good Hams.

The pork should be fat, cool and firm when cut, the hams rounded at top, the top and lower corners of the middlings being cut off for lard. The flesh should be a little aslant, and thus shorter than the skin of the ham at top, to allow for the contraction of the skin in curing. Saw off the bones of each ham that connected them, then joint the leg in the lower part of the knee joints and the ham is trimmed for cooking.

Make a brine of four to five gallons of water to each hundred pounds of meat, and eight to ten pounds of salt, two ounces salt-petre, two pounds brown sugar, and one ounce of red pepper, well mixed in tubs. Pack the hams, shoulders and middlings compactly (if cask room enough), to insure the proportion of brine which should cover the bulk of meat, and no more.

In four to six weeks, according to the size of the pork, hang by the legs and smoke till cured.

Before the first warm days in March wrap the pieces in old newspapers, then place a piece to a bag about long and wide enough to admit the pieces with the point of leg downwards. The bags may be made of oznaburghs, and will last for years; so, too, of the twine strings, doubled so that they can be looped over the top of the bag and hung up till wanted. Brine reaches all parts of the meat alike—does not rust it as the salt does, or leave the meat dried or dripping from heat through summer.

December, 1867.

S. W. F.

A Chapter on Washing Machines.

Washing machines and wringers are almost universally used in all the States north of Virginia. Within the past two years a number have been introduced into Virginia and other Southern States. In the great Valley of Virginia, where they are chiefly used by white people, they have been successful. In Eastern Virginia, and the southern part of the State, large numbers have failed to give satisfaction. This is not, however, the case when used by *whites*. Failures to give satisfaction are confined to those families who have not, *as yet*, given up the old habit of entrusting their washing to colored washers.

Where the "Challenge Washing Machine," and "Challenge Wringer," or any other *good* machines are used strictly according to printed directions, there is no such thing as fail.

No machine will give satisfaction unless *scalding suds* be used during the time the clothes are in process of being washed.

The printed directions explain how this is done. For more than two hundred years the ignorant whites and more ignorant blacks have entertained the belief that "*scalding water*" will set the dirt in the clothes.

In view of this fact, how can any sensible person expect such hirelings to use a washing machine of any sort with success?

Southern ladies must take hold of these machines, or they will continue to fail of success with them. Those who are able to hire their washing, must overlook the operation in person. If, at any time when not overlooked, the clothes are not properly washed, be sure, on the next wash-day, to take your seat near by the washer-woman, and have your printed directions in your hand; judge of the strength of the suds and of the boiling temperature of the water at each and every time the clothes are changed. Let it be distinctly understood that every article is to be carried through the washing machine and wringer exactly as the directions require. Continue this until it becomes a custom, and you will hear of no more washing machines being cast aside.

In a recent trip to the Border Agricultural Society, I learned of a large number of machines that were thrown aside. I know a gentleman who has had a Union Washing Machine at his house for three months, and his washer-woman refuses to use it. He has recently purchased a Challenge Washing Machine and Wringer, which the lady (*so-called*) fancies, and agrees to use, but in my opinion that, too, will be placed (very shortly) with the rubbish of the place.

I introduced the Washer and Wringer into my own family six months since, contrary to the advice and wishes of my better-half. She now says if they could not be replaced she would not part with them for \$1,000.

The injury now done to clothes by washer-women is far greater than before the war. Wash-boards are more generally used—and any washer-woman will admit she often rubs the clothes on the edge of the tub, and that she is aware that either method wears out the clothes very fast.

The old way of washing is a blind but a certain way of spending money.

Let all who contemplate purchasing a washing machine remember that it is a waste of money and a source of vexation, unless some intelligent person will supervise its use and follow the simple direction accompanying every machine.

I. I. HITE.

Arrington Depot, Nelson County, Va.

P. S.—I have recently (by experiment) hit upon a home-made soap—not more costly than common store bar soap—that enables us to wash successfully with the Challenge Washing Machine, with “*cold water.*”

I. I. H.

“Consideration is due to all things.”

THE SOUTHERN PLANTER AND FARMER.

RICHMOND, VIRGINIA, JANUARY, 1868.

TERMS OF SUBSCRIPTION AND ADVERTISING.

SUBSCRIPTION One Year,.....\$2.00

ADVERTISING.

1 square, 10 lines or less, one insertion,.....\$ 1 00	¼ page, one year,.....	\$ 35 00
1 square of 10 lines for six months,..... 6 00	½ page, six months,.....	35 00
1 square of 10 lines for one year,..... 10 00	½ page, one year,.....	60 00
1 page, single insertion,..... 15 00	1 page six months,.....	60 00
¼ page, six months,..... 20 00	1 page, one year,.....	100 00

PAYMENTS.

Subscriptions—in advance. Advertising—annual—quarterly in advance. All others in advance.

Editorial Department.

With salutations of kindness and good wishes, "*The Southern Planter and Farmer*" makes its obeisance to the late readers of "*The Southern Planter*," and "*The Farmer*," hitherto published separately, but now unified and continued in this journal as their successor and representative.

From many friends of both, we have received substantial tokens of their approbation of the arrangement by which the fusion of these journals has been effected. From these we derive encouragement to hope that the arrangement will approve itself to the general acceptance of our readers, having, up to this time, received but one order for discontinuance.

In consideration of the stringency of the times, and the impoverished condition of the South, the price of subscription for "*The Southern Planter and Farmer*" has been reduced to *Two Dollars* per annum *in advance*; the proprietor being willing to risk the success of his enterprise upon the contingency of a very large accession to the list of his subscribers as remuneration for the concession of 33½ per cent. which he makes in the reduction of the price.

He also hopes, by the diffusive and extended circulation of his journal, to accomplish much more in promoting improvement in the department of Agricultural Science and Art, and in encouraging the development of the industrial resources of the country than he could otherwise have expected.

It will be seen, by reference to the December number of "*The Farmer*," that the proprietors of that journal were not oblivious of considerations of public utility, in consenting to the consolidation of that magazine with "*The Southern Planter*." It had already become more than a self-sustaining enterprise, and might have so continued in their hands; yet, feeling "that *two* first class magazines could not be successfully maintained at this time, and that '*The Farmer*' and '*Southern Planter*' combined could afford to offer more than either could do alone," they generously relinquished the field of journalism, which we had occupied in common, to us, "hoping that the new arrangement might, in all respects, prove agreeable to the proprietor of the combined journals and to the public."

In tendering their "respectful adieus to those who have sustained their enterprise," they very kindly conclude their valedictory with the following recommendation and exhortation: "The farmers of Virginia, and those engaged in

mechanical and industrial pursuits, will be blind to their interests, and culpably neglectful of their high calling, if they withhold their support from such a journal as is now offered them in "The Planter and Farmer."

We review, with grateful sensibility, the kindly relations of amity and courtesy which existed between us while we were proprietors of competing journals, and cannot forbear the expression of our best wishes for the happiness and success of Messrs. Elliott & Shields in the fields of business to which they are now directing their attention.

The New Year a Time of Reckoning.

The recurrence of a new year is one of those way-marks in the voyage of life which naturally suggests to a reflecting mind the necessity for a temporary arrest of progress, to the end that a reckoning, as the sailor phrases it, may be taken of our position, to ascertain our latitude and departure. In the present circumstances of our condition, we can gain nothing from observation of the heavenly bodies, for they are so veiled in thick darkness that our telescope cannot penetrate. We are shut up, therefore, to the single remaining resource of overhauling the log-book, that we may thence ascertain what has been our progress, what the course of the ship, the direction of the winds, the state of the weather and the incidents of the voyage.

These incidents should be brought under the most scrutinizing review, and their effects in retarding or promoting progress carefully analyzed and noted down, in order that we learn by the experience of the past how to avoid future dangers, and how to avail ourselves of the light of such experience in shaping our future course, so as to catch the most favoring gales.

We should also inspect our provisions, to ascertain whether we have at our command an adequate store of the materials necessary for the supply of the needs of the journey, and to meet all the probable exigencies of the voyage; before we hoist our anchor and resume our course.

Errors Corrected.

In Mr. Ruffin's speech, published in the December number of *The Planter*, important errors occur in the calculations of freight, which render it necessary to restate them. Mr. Ruffin is not responsible for these errors—they are attributable only to ourselves. Not having access to the freight list of the railroad, he sent us the list of productions to fill out the amount of freight, which we undertook, but in transferring the amounts from the paper on which the calculations were made, some unaccountable inadvertence occurred which, in the hurry of dispatching the papers to him, escaped our notice.

The reader will please accept the following corrected statement for the paragraphs beginning as below and ending with fee-simple at the end of the 6th line on page 652:

1,500 bushels Wheat (27 cts. per hundred), 16.20 per bushel,	\$243 00
3,000 bushels Corn (27 cts. per hundred), 15.12 per bushel,	453 60
200,000 bbls. Hay, at 27 cts. per hundred,	540 00
20 beeves, 20,000 lbs., at 20 cts. per hundred,	40 00

Equal to the interest on \$21,276.67 1,276 60

Thus, though each farm cost, nominally, \$16,000, really the remote one has cost \$37,276.67, more than double by about 33 per cent.; for, the perpetual transportation tax is equal to a perpetual rent charge of \$3.19, or to the interest on \$53.17 per acre; thus making the real cost of the land \$93.17 instead of \$40 per acre. It requires a distance of only about 98 miles at the above rate of freights to absorb the fee simple of the land as compared with that which is near enough to market to make its own deliveries.

Farmers, Save Your Shucks.

In these times we should save, and turn to good account, everything that will pay a clean profit after the work is done, and it occurs to us that the old saying, "not worth shucks," should now become obsolete, for it can be shown that shucks are a paying article in more ways than one, and should have due attention in the economy of the farm. In the first place, shucks (properly prepared) are highly nutritious as Winter food for cattle. They should be cut up by one of the many valuable straw-cutters to be had at almost any village store, and being moistened with water and sprinkled with salt, and a little bran or shorts, and occasionally meal, they will be eaten by horses or cattle with a keen relish. If fed to them in the dry, uncut state, horses will not eat them when they can get anything else, and mules and cattle will trample and waste as much as they eat. "But," says some farmer, "I can't spare the time of hired freedmen to cut shucks to feed all my cattle." Ah, there is the trouble, "All my cattle." There is scarcely a farm in South-side Virginia and North Carolina (out of the regular stock raising section) that is not overstocked with poor, lank, stringy-tailed cattle, wandering over the farm in a half-starved condition all Winter, and breaking into the wheat-fields as soon as they see anything green there.

To this farmer we would say, "anything that is worth doing is worth doing well." Keep no more stock than you can furnish labor to feed well; prepare your shucks so your stock will eat them clean, and then you will have a surplus of hay and fodder to send to market. The price of sound clover or timothy hay in the Richmond market is \$1.25@1.35 per cwt.; fodder, \$1.25 per cwt., with no prospect of a decline during the Winter.

If you prefer to feed your stock on hay and fodder at 90c.@\$1.00 per cwt., which is what it would net you in clear cash if sent to market, don't let the shucks lie out in the weather to rot and waste, for they are worth 90c. per cwt. here, and if you live anywhere near a railroad, or the canal, our enterprising friends G. B. Stacy & Son, of this city, will come and buy them at a fair price at your door, and relieve you of the trouble and expense of baling. At present the tariff of rates on some of the railroads almost prohibit your sending shucks any great distance for sale; but we are informed that there is a chance of a considerable reduction in freight, and the great demand for shucks in the Northern markets being likely to increase, rather than diminish, the farmer should look to them as one of his sources of profit either for market or for home consumption, that he may market a surplus of other forage. See that your shucks are well protected, so as to be kept free from mildew, as *brightness* of color is one of the best recommendations you can offer in sending to market.

New Publications.

THE SOUTHERN LITERARY MESSENGER. Messrs. Wedderburn and Alfriend have announced their purpose of re-issuing this "old and popular standard magazine." Earnestly anxious to revive "The Messenger," they "appeal particularly to its old patrons, and to those who knew and appreciated its reputation in the past," to come to their aid. We hope this appeal will meet with a cheering response, and that the friends of the Messenger will *unanimously resolve* that its re-appearance shall not be delayed for the want of material support.

A TREATISE ON THE MULE. Harvey Riley, Superintendent of the Government Corral at Washington, gives his views and opinion in a very practical, useful and instructive manner, on the Training and Uses of the Mule, in a book of about 100 pages, with 14 illustrations. Sold by J. W. Randolph & English, Richmond, and published by Dick & Fitzgerald, 18 Ann street, N. Y.

THE NEW ECLECTIC, which replaces the late "Richmond Eclectic," is published in New York and Baltimore, by Lawrence Turnbull and F. Murdock, Editors and Proprietors. Subscription price, \$4 per annum, *payable in advance*. It is gotten up in fine style, and its pages are enriched with choice selections of foreign literature. We looked for its appearance with raised expectations, but it has even exceeded them in every respect. We hope it will soon enjoy a very large circulation, particularly in the South.

ELIZABETH FURNACE IRON PROPERTY. Jed. Hotchkiss, Esq., Civil Engineer, Staunton, Va., has sent us a description of the above property, situated in Augusta county, Va. (with maps and section), embracing its location, topography, geology, iron ores, &c. It is contained in a very neat pamphlet, which reflects great credit on the artistic style of the *Vindicator* job office.

Some of the matter contained in this pamphlet possesses such general interest, that we propose to make extracts from it in a future number for the benefit of our readers.

ILLUSTRATED CATALOGUE AND FLORAL GUIDE. Jas. Vick, importer of choice Flower and Vegetable Seeds, Rochester, New York, has sent us his Illustrated Guide for the Flower Garden, and Catalogue of Seeds, containing accurate descriptions of the leading floral treasures of the world; with plain and full directions for sowing seed, transplanting, and after-culture. Illustrated with numerous engravings—also choice seeds for the vegetable garden, with instructions for culture. Enclose 10 cents and get a copy.

EDWARD J. EVANS & Co., York, Penn., Nurserymen and Seedsmen, have sent us a descriptive circular of **NEW BRUNSWICK OATS**, described as very large and plump and of beautiful color, with a remarkably thin husk, and weighing 44 to 45 pounds. One dollar per peck or three dollars per bushel.

THE SOUTHERN CULTIVATOR. Messrs. Wm. Jones and W. L. Jones, having become the purchasers of this long established and popular journal, "will continue its publication." "No labor or expense," they say, "will be spared to make the paper meet the peculiar and pressing wants of the agricultural public. In the novel condition of the South, without experience to guide us in the new relations of labor and capital, our people need a free and full interchange of opinion and experience, and we hope they will make the *Cultivator* the medium of this interchange."

Dr. W. L. Jones, one of the Editors, is Professor of Agriculture in the University of Georgia.

We greet the new conductors of this excellent paper with salutations of hearty welcome into the Editorial fraternity, and best wishes for their prosperity and usefulness.

Commercial Report.

The year 1867 is now numbered with the past, and it becomes all who enter with us upon the duties and difficulties of a new year, to examine well the ground on which they stand, using the past, with all its lights and shadows, its successes and reverses, as so much experience, which shall be a guide to future action.

The man, be he merchant or farmer, who suffers a reverse or success to pass without applying its lesson so as to become wiser and more successful thereby, neglects the teachings of our wisest and best instructor, and deserves the consequences that follow such neglect.

The year that is just past brought with it many lessons, and it is our earnest wish that they may all be utilized and made available in strengthening our impoverished people, and in enriching them with an experience that shall enable them to make the operations of the future more successful than those of the past.

The year opened gloomily enough to verify the predictions of the most dependent. Heavy snows, accompanied by ice and extreme cold, delayed the farmer in his preparations for seeding and planting in the spring, prevented the proper handling of Tobacco in its preparation for market, blocked up the country roads, and clogged the wheels of commerce.

City merchants were without customers—and many planters, having exhausted a scanty purse as well as a precarious credit at the country store, were short of supplies, and all were looking to the coming spring, when returns might be expected from the Tobacco crop, or the remnant of Cotton or Grain still on hand, as a last hope of relief.

Spring came at last, but to disappoint them; trade was tardy, and its activity did not equal the preparations and expectation of either the Northern or Southern merchant, throughout the entire season.

City merchants were under heavy advances to country merchants and planters, and the whole basis for this credit was the scanty surplus of a most inefficient labor, which came dribbling into market in a most unsatisfactory way.

The producer had pitched his crops at heavy expense, at a time when labor and breadstuffs were high, and the staples proportionately high in value. He had bought fertilizers, seed wheat and supplies, on credit, at high prices and a high rate of interest, and came to market under the accumulated pressure of debt and newly recurring wants, with the expectation of *high prices for Cotton, high prices for Tobacco*, and, indeed, for everything he had to sell.

The disposition to hold back for higher prices was very evident all through the earlier part of the season. False hopes in regard to extreme prices having been raised, by a few unfortunately high sales, in the country, before the market fairly opened, and few planters seemed prepared to meet the views of buyers, when they indicated a lower scale of prices than those on which they had predicated the year's operations.

With this state of things existing, it was not to be expected that the business of the past year should *result profitably* to all the parties concerned; and, as in many instances, *it has* resulted in loss to merchant and planter, great caution should be exercised, so as to place any future plan of action on as sure a basis as the disjointed condition of the times will permit.

A few remarks in connection with some of the great staples on which the Southern people depend for commercial and industrial prosperity, will close this article, as we are compelled to forego a full report this month, promising our annual review in the February number, at which time we shall be able to give interesting statistics not yet obtainable.

WHEAT, FLOUR, &c.

Many years prior to the war, Grain and Flour were great sources of wealth and profit to the South, and especially to Virginia, who ranked, in 1860, as the fifth Wheat producing State in the Union. It is now well ascertained that the failure in this cereal, in the State at large, was a sad one and entailed much loss; and many planters have been deterred from the use of fertilizers to any extent in seeding the crop sown last autumn. They have, however, in a majority of cases, picked their best lands, and have used every precaution to obtain only the best varieties of seed; and it is to be hoped that the failure has induced them to seed a greater breadth of land than they have any season since the surrender.

“RICHMOND FLOUR INSPECTIONS.

Flour inspected at Richmond for the half year ending 31st December, 1867:

6,442	barrels	Family,
72,786	“	Extra Superfine,
8,928	“	Superfine,
2,070	half barrels	Superfine,
4,735	barrels	Fine,
196	“	Middlings,
549	“	Condemned.

RECEIPTS OF GRAIN IN RICHMOND DURING THIS SEASON.

The Richmond Flour and Grain Exchange opened on the 18th day of July last. Between that date and the 1st of January, the offerings have been as follows:

WHEAT—White, 255,971 bushels; Red, 111,186 bushels. Total, 369,159 bushels.

CORN—White, 159,874 bushels; Yellow, 17,470 bushels; Mixed, 33,629. Total, 210,973 bushels.

OATS—115,000 bushels.

RYE—33,490 bushels.”

TOBACCO.

In Virginia and North Carolina, this staple has been more largely cultivated than any other for two years past, and while the crop grown in 1866, and inspected last year, did not reach the general estimate of 45,000 hogsheads, its approximation to it (43,778 hogsheads) shows that this interest has been pushed forward with more energy than many others equally profitable and worthy of attention.

In much of the Tobacco region, this staple has been grown to the exclusion of *bread*, and many planters are now compelled to buy corn at from six to seven dollars per barrel, to subsist their laborers and teams, and to send Tobacco to market in winter order to be sold at low prices, that they may pay for the corn.

It is thus that this staple, hitherto looked upon as the farmers' money crop, has been made the supporter of family and farm, and it is therefore no matter of surprise if, when the farmer undertakes, with his Tobacco money, to pay the short-comings of farm, store account, blacksmith, and the debt due his commission merchant, he finds that accounts cannot, by any rule of arithmetic, be made to square.

Thus much for what has been expected of this staple of late, and we hasten to remark that the crop of the growth of 1867 indicates more decided quality than that of the previous year. More effort has been made to effect the curing of such a quality of Leaf as will meet our export demand, and that portion of the crop that has been brought to the warehouses in the loose state has generally given satisfaction.

“INSPECTIONS IN THE STATE.

We give below a statement of the inspections in the State from the 30th September, 1867, to the 1st instant:

Richmond,	-	-	-	-	-	-	1,758
Petersburg,	-	-	-	-	-	-	1,236
Farmville,	-	-	-	-	-	-	10
Lynchburg,	-	-	-	-	-	-	265
Total,							3,269

Richmond inspections last year, between 30th September and 1st January, were 1,142.

The inspections in the State for the year ending September 30th, 1867, were 43,778 hogsheads.

The Richmond inspections in 1860 were 46,633 hhd.; Petersburg, 17,533; Lynchburg, 9,301; Clarksville, 2,026, Farmville, 1,460. Total inspections of the State, 76,950 hhd.

STOCK ON HAND IN THE WAREHOUSES IN THE STATE.

The following is a statement of the stock in the warehouses in the State on the 1st instant:

				INSPECTED.	FOR INSPECTION.
Richmond,	-	-	-	808	30
Petersburg,	-	-	-	317	158
Farmville,	-	-	-	20	
Lynchburg,	-	-	-	120	17
Total,				1,271	205

Making the total stock in the State, inspected and uninspected, 1,476 hhd., the smallest stock within the memory of man.

Total stock in the State on the 1st of October last was 5,042 hhd., whereof 4,500 hhd. were inspected, and 542 hhd. uninspected.”

The sales made thus far do not vary materially from the range of prices at this time last year. The future course of the market time and circumstances can alone develop; and as we expect to embrace in our review in February valuable facts bearing on the whole trade, we dismiss the subject.

The following quotations will give the present condition of the markets:

LUGS.		LEAF.	
Common and light weights,	\$ 3.50@ 5 50	Common,	\$10.00@12.00
Fair,	6.00@ 8.00	Medium,	14 00@16.00
Good Shipping,	6.00@ 8.00	Good Working,	17.00@21.00
Good Working,	10.00@13.00	Fine “	23.00@30.00
Common Bright,	13.00@16.00	Good Shipping,	16.00@18.00
Medium Bright,	17.00@10.00	Fine “	20 00@23.00
Good Bright,	25.00@27.00	Medium Brights,	22 00@27.00
Fine Bright,	30.00@40.00	Good Brights,	30.00@35.00
		Fine Brights,	40.00@60.00
		Extra Fancy,	75.00@100.00

WHEAT—Good White, \$2.55; Good Red, 2.30@2.40. CORN—New White, 1.55. OATS—70 cts. RYE—1.50. MEAL—1.12½@1.15.

We are indebted to our enterprising friend, Mr. P. H. Gibson, for valuable statistics extracted from his Price Current.

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Dove's Bouquet de Orleans, or XX Bourbon.

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Dove's Rheumatic Liniment.

Dove's Early Bird Vermifuge.

We are prepared to furnish the above preparations of Mr. S. E. Dove's to consumers or the trade in any quantity. Agents for the celebrated Mother's Breast Cloths to relieve pain and prevent Gutherea Breast. mh—ly

Planters National Bank, OF RICHMOND.

(SUCCESSOR TO THE OLD FARMERS BANK OF VIRGINIA.)

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J. M. GODDIN, Cashier.



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
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