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THE

SOUTHERN PLANTER

DEVOTED TO

AGRICULTURE, HORTICULTURE, LIVE STOCK AND THE HOUSEHOLD.

T. W. ORMOND, - - - - - PROPRIETOR.
W. C. KNIGHT, - - - - - EDITOR.
W. C. JACKSON, - - - - - ADVERTISING AGENT.

44th Year. SEPTEMBER, 1883. No. 9

CONTENTS:

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—THE—

SOUTHERN PLANTER.

DEVOTED TO

Agriculture, Horticulture, Live Stock and the Household.

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

T. W. ORMOND, - - - - - - - - PROPRIETOR.
W. C. KNIGHT, - - - - - - - - EDITOR.

44TH YEAR. RICHMOND, SEPTEMBER, 1883. No. 9.

FARMERS AND FARMING IN VIRGINIA IN THE OLDEN TIME.

No. 14.

1. Letter from Col. T. J. RANDOLPH on early fallows for wheat, effects of green manures on the soil, &c.

2. An essay by Mr. JESSE EDGENTON, of Brooke county (now W. Va.), on the subject of raising sheep.

————————, 1822.

Sir,—From my first commencing as a farmer, I have been struck with the great increase of the wheat crop and the improvement of the land from fallows made in July and August over those made in September and October. I will state the facts as I observed them, hoping that it may elicit something of more importance from others.

In fallowing for wheat in July, 1812, upon a farm then under lease, I was desired by the tenant to leave a piece of land near his barn to stack his straw on. In plowing the land a second time, he allowed me to fallow the spot not plowed before. It broke in fine tilth, and was apparently as well prepared as that twice plowed. From its vicinity to the barn it was, perhaps, more fertile than the adjoining lands. The crop was much better on the early fallow than on the late, and the growth of weeds after harvest much more luxuriant.

On repeated observations since on clover as well as common

grass fallow, I have observed that land plowed in July and the early part of August, changed many shades darker after plowing than land adjoining fallowed in September and October, which, if it ever changed at all, the change was imperceptible. I have observed the crop to be greater, to ripen better, less liable to accidents from rust, &c., the growth of weeds after it to be more luxuriant, and the land having the appearance of an increased fertility, succeeding early fallows in comparison with late; the preparations in all things the same. What could have caused the change in the colour of the clay turned by the early fallows previous to being mixed with the soil by a second plowing? It was not in contact with the vegetable matter turned by the plow. The observations were made where it had been covered many inches. The sun alone could have produced no such effect. I supposed the change to be produced from the quantity of gas generated in the decomposition of vegetable matter turned under, which, rising through the clay, had impregnated the whole mass of it, and had fertilized it to the surface. That in July and August, the days being long and hot, the nights warm, vegetation tender and succulent, the decomposition was rapid and the quantity of this fertilizing gas very great. On the contrary, in September and October, the days much shorter, the nights longer and cool, vegetation hard and woody, and all circumstances unfavorable for a rapid decomposition, the air was disengaged in small quantities, and gradually wasted without producing a perceptible effect. From these observations I have been induced to adopt the following opinions:

1. That the fertilizing properties of manure exist more in the gas that is generated in its decomposition than from the body or quantum of the manure itself.

2. That half-rotted manures are more active in their effects than those completely rotted.

That manure rises by means of this air generated from it, and does not sink as has been supposed.

Respectfully, TH. J. RANDOLPH

Peter Minor, Esq., Secretary of Agricultural Society of Albemarle.

Brooke Co., Va., 3d March, 1827.

"I purchased about two hundred ewes, in the year eighteen hundred and twenty-one, in the counties of ——— and Washington, for which I paid, when brought to the farm, five hun-

dred dollars, and also three rams from N. Dickenson's flock in Ohio at twenty-five dollars each—seventy-five dollars. I have occasionally bought and sold sheep since, but not so as to vary the result of the present number or value of my flock materially. The general result in five years is as follows:

	Year.	*Wool, per lb.*		*Lambs.*
1	1822	42 cents,	$ 400	180
2	1823	44 "	687	185
3	1824	46 "	846	170
4	1825	45 "	1,350	400
5	1826	33⅓ "	1,600	450

"Present flock between fifteen and sixteen hundred, some four or five rams purchased at different times $200; the whole sum vested in sheep, say $750. The ewes should be kept in separate flocks of not more than two hundred; the lambs weaned at from three to four months old. About one ram to seventy ewes will be sufficient, and to a hundred is sometimes allowed, but I think the lambs are not so good generally. When different flocks of ewes are kept on the same farm by the same hands, I have generally preferred putting the rams to the first flock about the 15th of September, so that the lambs will come about the middle of February; the next about the 1st of October, so that the lambs come the first of March. I have never allowed young ewes to go to the ram until the first of November preceding the spring they will be two years old. These should be kept also in a separate flock. The lambs come first of April, when the grass will afford pasture enough, without hay or grain. Generally in the warm season fewer lambs die, and they will more likely own their lambs, which are commonly more feeble than those of ewes of full age. At weaning, the lambs should be put into fresh pastures, and, if practicable, run to hay stacks that have been put up in salt, so that eating as they will the hay, the scurveying produced by fall pasture, especially in wet seasons, will be avoided. If anything of the kind should appear, those affected should be taken from the flock and fed with oats until they have recovered. The lambs should be kept in a flock through the winter and fed carefully—from the first frosts in autumn until the first of April, and kept in houses or sheds well littered, and fed with hay twice a day, and corn or oats once a day; from one-half to one bushel of

corn at a time in troughs. The ewes will do very well generally until about the first of January without grain. After that time they ought to be fed at the rate above stated. Wethers will do very well on hay and straw and without sheds, but I should prefer having them housed, on account of the fleece which is injured by winter and spring rains; and grain is of great service to them from the latter part of February until the first of April. Lambs should be castrated and dressed at from eight days to a month old; early ones in April to escape the flies. If done later in the season, fresh oil should be applied and tar.

"In the counties of Western Virginia, I believe about five sheep to an acre of good sod pasture will be found a full estimate for the summer season. The very best land, well set with green sward, will pasture eight or nine, breed well the whole season for pasture. The precise quantity of provender necessary to winter sheep has been variously estimated. The winters vary sometimes, so as to make a difference of fifty per cent.; but, upon an average, I believe about four tons of hay and fifty bushels of corn to a hundred sheep, is about a just and proper allowance. The skill and attention of a Shepherd in feeding a flock has necessarily a great influence upon the quantity of provender to sustain a flock. Sheep ought to have salt at least twice a week—about one quart at a time to every hundred, and taken once a day in winter, when there is no snow on the ground.

"If pastured on improved farms, 200 or 300 is enough for a flock. There seems to be a variety of opinions upon the subject of having small folds and frequent changes of pasture. Most wool-growers are in favour of small folds and frequent changes. I am inclined to think that large pastures are preferable, and a change of two or three times a season is sufficient. Sheep are naturally inclined to roam, and confinement injures them. If the range be unlimited, thousands may do well in a flock on the plan of temporary sheds. The length according to the number of the flock.

"The rams should be separated from the ewes in December, so that no lambs may come after the last of April; they are generally troublesome, and do not winter well. If they run through the winter with the ewes, they sometimes lose their lambs; your lambs are coming at distant times, and are troublesome, without value. If you have several flocks of ewes, the best plan is to put all your rams into one flock and let them re-

main two weeks or longer. You can then take them all out but one and put them to another flock. They ought to be fed once or twice a day with corn or oats, a pint at a time, for the first two or three days. The average weight of fleece will be four and one-fourth pounds, and washed, will lose, on fine wool, fifty to seventy-five per cent.; coarse wool, twenty-five to thirty. One dollar a head is the estimate for keeping sheep a year. This includes every expense, rent of land and reasonable profit for superintendence, &c." JESSE EDGINTON.

PROFITABLENESS OF FARMING.

There are different ways of looking at the profitableness of farming, and the prospect is rosy or gloomy, according to the standpoint from which it is viewed. If you want about the most lugubrious opinion of this business that can be expressed, come this way and we will show you where to find it. We will go to some place where the fences are lying in tumble-down ruin, the gates hanging by one hinge, the barn a lop-sided, leaning pile; the barn-yard a reeking swamp; the house a leaking, dismal wreck; its windows stuffed with old coats and hats—everything devoid of paint or finish, and nothing in its proper place or in decent condition. If you can fight your way through the curs around the door to the proprietor, ask him, while he eyes you with strong suspicion, whether farming pays. If he is not afraid that his answer will give you some opportunity of cheating him, he will tell you that farming is the worst business in the world. Then, when you have warily backed out from among his dogs, we'll make another visit. Let us try a farm where fences, buildings and improvements are all substantial, neat and first-class; where paint, window-glasses, &c., are abundant: where everything gives evidence of thrift and industry. As the proprietor turns from some employment to greet you frankly and heartily, ask him whether farming pays. His answer is in his surroundings. Such contrasts are by no means fanciful, and we have seen them quite sharply defined on farms in the same neighborhood possessing naturally equal advantages. It is a pleasure to know that squalor is being rapidly and steadily driven from progressive modern agriculture, and that pictures of the kind first viewed are becoming more rare from year to year. The farm is, as a rule, an index to the character of the farmer, as well as an exponent of his industry and his methods. Other things being equal, much of the success or failure of agriculture lies in the directing mind. If this be vigorous, thoughtful, studious, earnest results may be depended on to take care of themselves. The bulk of the American people are living by farming, and the growth of the country's wealth is sufficient proof that it pays.—*Pittsburg Statesman.*

MINERAL MANURE ON PEA FALLOW.

Editor Southern Planter,—I fully agree with you that we ought not to expect our poor lands to produce full crops, unless we manure them liberally. The old adage, "Feed the soil and it will feed you," is true, but very much disregarded. Is it any wonder that our lands in Virginia, in their exhausted condition from cropping, should fail without help to produce remunerating crops? Take that field over yonder, cleared fifty years ago, and think of the vast quantities of mineral elements removed from that soil in the crops taken therefrom. The real cause for wonder is that it will produce anything, when we reflect that not a particle of fertilizing matter has been returned to supply the great quantity of that removed in the crops.

Plants, like animals, must have food, to grow and develop, and if partially supplied, the growth is abnormal; and if withheld, they perish. Some farmers treat their soil like the average freedman treats his horse—works it hard and feeds but little; and the consequence is alike—neither get paying returns.

Mr. Ruffin regarded the application of lime as of most importance. English farmers claimed that phosphoric acid, potash and lime were most needed as improvers of the soil; and experience has demonstrated that their theory, when put to practice, has produced best results.

Phosphoric acid is never in over-supply in any of our soils, and as it is one of the essential constituents in all of our crops, it may be safely put down as a fact, that all of our soils need continual applications of phosphoric acid to keep up fertility and insure maximum crops.

As regards the cheapest and best form in which to apply phosphoric acid, and in what proportion to combine it with other fertilizing ingredients, there is difference of opinion, growing doubtless out of the different soils to which the different forms of this substance were applied.

It is conceded by all that our S. C. deposits furnish the cheapest material in this line and constitute the main reliance for phosphatic material by our fertilizer manufacturers. Time will prove whether the ground South Carolina fossil bone, or that treated with sulphuric acid, acid phosphate, is best.

Applications of kainit, the cheapest and most available form in which to procure potash, cannot fail to prove of decided benefit to such of our lands as are deficient in that element of plant food.

That the application of mineral fertilizers alone will restore the fer-

tility of our soils while producing maximum crops has been demonstrated, but at an outlay beyond the means of the average Virginia farmer.

But may we not so use the mineral fertilizers as to enrich our soils at comparatively small cost? The writer's limited experience enables him to answer hopefully, what farmers of larger experience assert positively.

Phosphoric acid, lime and potash combined, form a specific manure for the field pea, which is a great improver of our soils. The mixture may be applied to peas sown on fallow, or at last plowing for corn when both are sown. A rank growth of peas furnish rich pabulum for the wheat crop. But in order to grow a maximum crop of wheat and secure a good catch of clover, it is well to apply the mixture liberally again when the wheat is sown.

Now, any soil that can be made to grow a good crop of clover may in time be made rich, and at comparatively small cost.

The field pea is a wonderful worker and renovator when we give it a fair chance and help it a little; and prepares the way for clover on thousands of our exhausted acres, and the two together are destined, under other changes, to revolutionize Southern farming.

Necessity, the arbiter of all industrial affairs, will force a change from the old *regime*. We scatter our means and energies over too broad a field, instead of concentrating them on fewer acres liberally fertilized and thoroughly tilled.

The growing scarcity and unreliability of labor will operate to lessen the area tilled and to increase pasturage. Hay, meadows, cattle, hogs, sheep, &c., will increase, while the tobacco crop in Virginia and cotton and other crops South will diminish, and less farm labor will be needed. More attention will be paid to the *little industries* on the farm, and what is of most consequence, the result of the change, will be the improvement of the soil, the farmer's bank, which honors all his drafts. And I take occasion here to say, that any system of farming which fails to improve the soil is defective, and ought to be abandoned.

He is indeed a benefactor who, while growing paying crops, improves his soil, and his example is worthy of all praise, and should encourage others to do likewise. Men like Farish Furman will live in the hearts of future generations, when the memory of thousands of ranting politicians and fussy statesmen will have perished in oblivion.

R. L. Ragland.

Hyco, Va., July 19.

ROTATION.

Editor Southern Planter,—I am much interested in the subject of rotation, having a quantity of exhausted land in Prince William county which I am striving to improve without too much expense. and believe it can be best done by a judicious rotation.

Rotation, if I understand the term, means an unvarying succession of crops, so adjusted that each in turn is advantageously followed by its successor. Thus, clover is well followed by corn, corn by wheat, and wheat by clover, bringing back the series to its beginning.

If we have as many fields as we have different crops, and if each field is under a different crop, it will follow that, year after year, we will harvest precisely the same crops, and that, year after year, all the work of the farm will be precisely the same, thus avoiding extraordinary press of work at any time and enabling the farmer to get along with only his regular force. Taking the simple rotation above indicated, the farmer would have three fields, and the result would be as follows:

Fields.	*First Year.*	*Second Year.*	*Third Year.*	*Fourth Year.*
One,	Clover,	Corn,	Wheat,	Clover,
Two,	Corn,	Wheat,	Clover,	Corn,
Three,	Wheat,	Clover,	Corn,	Wheat.

From this it is apparent that the farmer would make precisely the same crops every year. The advantage of this is not only that the same preparations and the same force would always be required, but that a vast deal of mental wear and tear would be saved that otherwise is expended in planing a new campaign every year and getting things in order for it. Scientists are beginning to recognize the fact that a man's mental energy is, like his physical strength, a limited quantity, and many a man is broken down at fifty who, if he had pursued a regular system of farming as well as a regular system of living, would have been good for a score of years longer. Habit saves thinking. System does the same.

It is said, and I have known instances of the truth of the saying, that navy and army officers make good farmers. If so, the cause lies in the systematic habits they have acquired in service; and it would seem that system, without experience, is fully as effective as experience without system.

It seems, however, that agriculturists are not agreed as to what con-

stitutes a good rotation, for your eminent correspondent, H. M. Drewry, has, in your July number, laid down a plan by which the products would be extremely irregular, and in some years essential crops would be wanting. Leaving out of view his fifth field, which is to be in permanent pasture or "pet lots," and so does not come into the rotation at all, he divides 200 acres into four fields nominally, but really into five, because a tobacco lot is taken off from field one, and from these five fields there would be harvested as follows, if I understand him:

Fields.	*Acres.*	*First Year.*	*Second Year.*	*Third Year.*
One,	Forty,	Corn,	Oats,	Hay,
	Ten,	Tobacco,	Wheat,	Hay,
Two,	Fifty,	Hay,	Wheat,	Hay,
Three,	Fifty,	Hay,	Hay,	Wheat,
Four,	Fifty,	Corn,	Oats,	Hay.

Thus, he would harvest:

First Year.—Corn, 90 acres; tobacco, 10 acres; hay, 100 acres. In all, 200 acres.

Second Year.—Oats, 90 acres; wheat, 60 acres; hay 50 acres. In all, 200 acres.

Third Year.—Wheat, 50 acres; hay, 150 acres. In all, 200 acres.

This, it appears to me, would not answer the purpose of a rotation.

The rotation I mentioned above is much approved in the lower counties of Maryland. Another rotation used there by a most successful farmer was clover, wheat, corn, wheat, clover. Still another was clover, wheat, clover, corn, wheat. The first is regarded as the most improving, but it has a disadvantage—that of following corn with wheat. It is difficult to haul off the corn in time to get the field clean and in good order. I would greatly prefer to follow corn with some spring crop, and have the whole winter to haul off corn, so as not to be pressed and hurried. But what spring crop can one sow in this latitude? A root crop would unquestionably be the best, but forty or fifty acres of potatoes are not to be thought of. Oats do not pay. It has been suggested that rye sown during the corn, at the last working, and pastured in winter and spring would answer, but I do not hear that any one has tried it.

I consider it established that clover, corn, wheat and clover would be the most improving and easiest system of cropping, unless a paying crop could be interposed between the corn and wheat, and I would be very thankful to any of your readers who would suggest such a crop.

J. D. M.

STATE AGRICULTURAL SOCIETY.

CHARLOTTESVILLE, July —, 1883.

Editor Southern Planter:

As you take so much interest in the so-called "*State Agricultural* Society," and seem so anxious to promote its future prosperity, perhaps you would like to see it from the standpoint of a farmer of the new generation who has had to struggle with the burden of debt-laden and impoverished land so long that he has learned the value of his time and money too well to throw them away upon a Society which seems to have for its *chief* object the holding of an annual *show* in Richmond, in which agricultural productions and farming implements, etc., are amongst the minor attractions.

How do we practical farmers away from the vicinity of Richmond ever hear of the State Agricultural Society? Only being solicited to become life-members at an expense of $20, or to attend the fair, with an occasional suggestion that if we have anything extra fine we might as well take it down with us. When we inquire what good we are to get from the expenditure of our time and money, there is talk of the promotion of the agricultural interest of the State, with a lot of high-sounding generalities, but not the slightest prospect of any work of real benefit to that interest, or even mention of any, to be accomplished by the Society, have I ever heard of. Its whole end and object seems to be to hold a successful annual show of some sort at Richmond and thus to keep itself alive. Now, sir, if after so many years of bare existence it is found to be of so little benefit to the farmers of the State that they leave its maintenance to the railroads and the people of the city of Richmond and its vicinity, and care so little for it as not even to go to see its show, is it not time either to let the concern die, as having survived its usefulness, or else let it get out of its old, time-worn rut and show its claim to being considered entitled to its name by becoming a real, live Agricultural Society.

It clearly cannot stand much longer as merely a Society for holding a show. We can get at our doors more show for our money from Barnum or any other good circus manager. We can more satisfactorily see and have explained to us the merits of an agricultural machine by inspecting the catalogues of the implement dealers and visiting their warerooms. We can get a great deal more desirable information about fine stock by visiting one of our numerous breeders and inspecting his stock in their every-day condition and conversing with him as to their management, growth, etc., than we can by a cursory inspection of stock

and implements at a crowded fair, where no one has time to devote to us, even if our time and attention is not wholly taken up with the superagricultural features of the exhibition. Who would go to a horse race to discuss plows and reapers, or to a circus or military parade to discuss pigs and cows? The Society's exhibitions are yearly becoming more and more places of amusement, with its agricultural features becoming less and less prominent, and the real farmer's interest in the Society has almost died entirely out.

The question now is, How can the Society become of such real and practical benefit to the farmer as to attract his attention and secure his support? In answer to this I make the following suggestions:

1. Popularize the Society by bringing it nearer to the body of the country. Let the fair grounds at Richmond go, pay off the debts and invest the residue of its proceeds, if any, as an endowment fund, and hereafter hold the fairs in rotation at such places as can and will furnish suitable accommodations, say at Lynchburg, Staunton, Danville, Petersburg, Culpeper, Alexandria, Fredericksburg and Richmond, if she sees fit to provide a proper place. Many of these places have already fair grounds and accommodations for local societies which would be gladly yielded once in five or six years for the grand State Fair.

2. Require every recipient of a premium to give in a written communication the particulars of the means whereby his production or animal acquired its excellence. What good does it do a farmer to see a big pumpkin or a fat ox if he is not informed how it was made to grow so large or to take on so much flesh? What idea of any practical value can he acquire from a simple inspection, or how can he tell whether it will pay to strive for like results unless he can get some idea of the trouble and cost of the process? Let premiums be given for the best crops of our leading productions and a detailed account of the preparation, cultivation and management be required. Offer premiums for best practical essays on various agricultural problems, and then *publish them.*

3. Let the Society publish either in an annual volume, or in the shape of a periodical, its transactions, giving these methods of production and management of premium products and animals, these premium essays, and detailed information on such other subjects and enterprises as the Society may deem most important. Let this volume or periodical be sent free to all members of the Society, and for a proper subscription to any others. There will thus be an inducement to farmers who have neither time nor inclination to attend the Richmond shows, to become

members of the Society. As it is now, if a farmer pays $20 to become a life-member, he has to spend some $20 more yearly to get any kind of a return for his first investment, in the shape of expenses to and in Richmond to see the show, and then when he gets home has only a confused jumble of recollections of soldiers and ships, of street-cars and race-horses, mountebanks and pickpockets, with a slight mixture of cattle and sheep, pigs and pumpkins, and queer machines, of whose use he was too confused and hurried to enquire, as the sole result of his expenditure of time and money. The next year, if he wants to see a show, he spends fifty cents on a circus, and saves time and money by staying at home during fair week.

Let the Society become worth the farmer's support, and it will not have to depend on horse-racing and military displays for its existence. Give a farmer something of value to show for his money, whether he gets to the annual fair or not, and he will not be so indifferent about membership.

Let the Society show its capacities for work beneficial to our agricultural interests, and there is public spirit enough amongst us to support it without its becoming a dependent of railroad corporations or the recipient of the reluctant alms of the city of Richmond. Since the *farmers* have ceased going to the fairs, bring the fairs to the farmers, as the Royal Agricultural Society of England does not disdain to do.

4. Let the Society, as the representative of the agricultural interest of the State, work for our relief from some of the oppressive and unjust burdens now weighing us down, such as the one mentioned by your correspondent, "W.," in your July number, viz.: the unjust and oppressive discrimination against us in freight charges on the railroads built by our money. How can our agriculture prosper when it costs us as much, or more, to get our products to market than it does the occupier of the comparatively new and cheap soil of the West? If the Society, ceasing to have for its only object a big and successful show at Richmond, devotes the talents and means at its disposal to the objects for which it was formed—the promotion of successful agriculture in Virginia—and will let the farmers know it, they will not fail of a hearty and earnest support." H. M. Magruder.

[As a farmer of the State, our correspondent has a right to express his views. Whilst we differ with him in the apparent tone of his communication, as well as to many of his suggestions, we thoroughly agree with him in others. We have neither time or space now to discuss the subject, and may express the hope that other friends of the Society will do so. His second and third points are well taken. For years we advocated, as a member of the Executive Committee, the publication of the Society's transactions, either annually or in the form of a monthly journal. The latter for one year was adopted, and

though it brought not a dollar of cost to the Society, it was allowed to perish. An organ of this kind would be the means of keeping the work of the Society always before the farmers of the State, and of distributing much valuable information.—Ed. S. P.]

ROTATION.

June 17th, 1883.

Editor Southern Planter:

While the majority of farmers barely make a living by agriculture, observation teaches us that many men make money, some even fortunes in its pursuit. This is sometimes due to the location, soil, and other advantages of the farm itself. Yet it is not always so; on the other hand, we see men whose advantages are quite equal, differ widely in results—one from day to day improving his condition, the other remaining in *statue quo*, or more frequently drifting astern. Nor is this difference always due to the superior intelligence or energy of either. Where, then, is to be found the reason? Is it not most likely in the system pursued by the one or the other? No one system can be devised that would suit every individual case, even in the most limited neighborhood. Certain fundamental principles, however, underlie all permanently successful farming. Such are a judicious rotation of crops, drainage, adaptation of crops to his surroundings, thorough preparation and cultivation of the soil, sufficiency of manures, limiting of expenditures within receipts, the master's brain employed in his calling and his eye upon the details. These, among others, are universally acknowledged essentials—rough outlines by which each case must be moulded. Living like the polar star as guides to all, however different may be the distinction of each. Reasons that cannot be lost sight of without danger to the successful continuance of the voyage. Having thought much of the system best adapted to the farmers of to-day in Tidewater Virginia, the following seems to me certainly as good as any that have been offered.

Assuming that three hundred acres is the average size of farms, of which seventy-five are woods and waste ground, and twenty-five comprised within the yards, garden, orchards, truck patches, and grass lots, etc., leaving two hundred in the farm proper of arable land. Lay it off in ten shifts of twenty acres each. The whole may be in one ring fence, or it may be divided into five fields, if convenient. Beginning with shift No. 1, we would apply upon it the preceding autumn or winter (the earlier the better) all the manure that can be raised from the stables, from pens, pig-pens and dung-hills. If enough cannot be

procured from these sources, supplement with scrapings from the roads, trash from the woods, mud from the creek and marshes or ditches. Spread as hauled. Have the ground thoroughly plowed, whether before or after the application of the manure at that season is not material. The earlier the plowing is done the better for the crop. Should the land become much compacted, a replowing will be necessary, but generally a vigorous application of the shovel plows and harrows will bring it to the proper degree of tilth. The land should be thrown into beds of not less than 18 feet in width; before laying it off, apply lime at from 10 to 25 bushels to the acre, reharrow and lay it off in rows to suit. I prefer 4½ feet and checked. If possible have some compost prepared to sprinkle lightly in the drills in order to start the corn vigorously. Cultivate thoroughly with shovel-plows and cultivators; at the last working sow one gallon clover seed or one bushel black peas to the acre. If in clover the second year cut the first crop, graze off the second closely, fallow and sow to wheat. This year, field No. 2 having undergone like treatment, is in corn. The following February No. 1 is again sowed in clover upon the wheat, as before, one gallon per acre. The third year No. 3 is in corn, No. 2 in clover, and No. 1 in wheat. The fourth year No. 1 is in clover, No. 2 in wheat, No. 3 in clover, No. 4 in corn. Fifth year—No. 1 in wheat, No. 2 in clover, No. 3 in wheat, No. 4 in clover, No. 5 in corn. This year, in the fall or the following spring, No. 1 being for the second time in wheat, is sowed to grass. Sixth year—No. 1 in grass, No. 2 in wheat, No. 3 in clover, No. 4 in wheat, No. 5 in clover, No. 6 in corn. Seventh year—No. 1 in grass, No. 2 in grass, No. 3 in wheat, No. 4 in clover, No. 5 in wheat, No. 6 in clover, and No. 7 in corn. Carrying this on for ten years, we then have five shifts (100 acres) in grass, two shifts (40 acres) in wheat, 40 acres in clover and 20 acres in corn, when the rotation begins again. Oats may be substituted on ten acres in place of wheat, and peas may be planted broadcast or drilled after corn, in place of clover, as may be preferred.

Such is the outline of the system which, after much reading, reflection and some practical experience, I have determined to adopt unless a better presents itself. It seems to me that under this or some similar system, the maximum of profit with the minimum of hired labor may be found. And at the same time our lands, instead of growing more and more worthless each year, will steadily improve until we stand agriculturally where nature in its bounty intended us to, among the foremost of farming communities.

I have written the foregoing with two objects—to show our brother

farmers in other sections of the State that down here by the murmuring waves many of us are striving with brain and muscle to redeem the homes, with a firm faith, believing that the years to come will witness the brightest day agriculture has ever seen; and chiefly to elicit the views of older and more experienced farmers on the system here presented, conscious that in many things it may be amended for the better.

"YOUNG VIRGINIAN."

WEARING OUT SOIL.

We hear a good deal said constantly about soil deteriorations and their ultimately wearing out. In all old settled countries where a slack system of farming is carried on, the soil soon loses its fertility, the resort must be had to heavy manuring, or such a system of fallow rejuvination, that while the soil may have rest in the direction in which it has been depleted, some crop may be raised to shade the ground, and eventually be turned under to furnish food for succeeding crops. It is quite true that we may not draw on any soil year after year in the production of special crops, without unfitting it for fair production. We may easily unfit most soils mechanically so that their productive qualities will be locked up; yet this being done under inefficient cultivation, a practical man will take the farm, and in a few years bring it again up to a fair standard of fertility. It is a fixed law that whatever elements of fertility are carried away from a soil must again be in some way replaced. Hence the well know value of manures, of clover and grasses, and of various plants that may be plowed under to again render the soil fertile. Hence again in well-conducted farming the necessity of a well-digested rotation of crops, adapted to the special soils worked. All farms are not adapted to wheat, or to corn, or to stock grazing or dairying. Hence every farmer grows such crops as his judgment dictates as best adapted to the nature of his land, and the more intelligent ones seek by diversified crops not only to keep the fertility intact, but to improve it.

In this way the soil is rich and fertile over vast areas of country. There are plenty of instances where farms have been cultivated for over forty years to corn as the principal crop, without especial diminution of fertility. While so growing corn, stock has been made a speciality. This necessitates plenty of grass, and grass in the rotation is one of the best possible means of fertilization. In other words, nothing has been carried off from the farm but the meat products made. In this way the soil of ordinary fertility may be kept intact indefinitely, if the mechanical texture of the soil be kept intact. This is done by careful plowing, never when the soil will not cleave, in a friable state, from the plowshare, and by good and clean cultivation. Another man has a farm well adapted to wheat. Does he make this the sole crop! By no means. It may be the crop from which he gets

his money profit, but clover is the strong integer in the system of renovation, and thus again stock must be used. The good farmer cultivates not only such crops as are best adapted to his own market, and by the exercise of good business sagacity keeps his soil not only intact, but often increases his yield materially. There is indeed much sense, as well as nonsense, mixed up with this question of soils running down. It is, however, the non-reading and generally slack farmer who lets his soil run down, while the business farmer is not only careful to keep his farm fully up to its natural fertility, but seeks by every means in his power to make it more productive year by year until at last he is gratified with knowing that he has reached the point of maximum and more fertility.—*Prairie Farmer.*

[Extracts from a communication from Col. Robt. Beverly to the *Industrial South.*]

HOW TO PROMOTE SUCCESSFUL AGRICULTURE IN VIRGINIA.

First. Cultivation of smaller areas of land, and prepare that area for the successful use of all approved labor-saving machines.

Second. Encourage the establishment of factories for all these machines, and for the manufacture of all the raw material of whatever sort produced in Virginia.

Third. Encouragement to all railroads that are not monopolists contending for through traffic at the expense of Virginia agriculture by excessive local freight rates.

Fourth. Let politics alone, except State policy as it may affect agriculture and the material prosperity of the State.

First. It is absolutely certain now that with the smooth prairie lands of the West, brought in immediate competition with our worn lands (that have been exhausted in building up the greatest nation on earth), by the extension of railroads to every part of the West, we cannot contend successfully with the producers in those countries simply with the plow and hoe. We must prepare our lands by taking small areas annually for the use of all labor saving machines. Most prominent among them, next to improved plows, are the wheat drill, the mower, the reaper and binder, the corn planter, and last but not least, except in price, is a lately invented broadcast grass-seed sower. Then the corn sheller over the hand shelling; the wheat thresher over the old fashion of treading out; the portable steam saw mill to go and locate in any woods over the old water power, and further back still over the "pit saw," are improvements so long known that it is obsolete to mention them now; yet I have seen all the old sort used only fifty years ago.

What do these improved implements do? Reduce the cost of cultivation to one-third, and with some implements, such as the reaper and binder and the broadcast grass seed sower, to one-fourth the old expense of cradling wheat and hand sowing seed. In addition the drill and the grass seed sower save at least one fourth the seed, which in

clover seed at $8 per bushel is an item; and the reaper and binder save in the harvesting fully one bushel of wheat to the acre over the old plan with the cradle and rake—thus putting us more nearly on a footing with the western farmer. There is no section of our State that can't be brought to a perfect condition for the use of these labor saving implements by judicious farming, taking small ares for cultivation each year, and putting the same labor on the small area that you would in the slovenly cultivation of the large surfaces, except our rough mountain sides, and they are in most cases admirably adapted to grass, and will compete with any country in the dairy products. A wheat drill, with one hand and two horses (or if you are applying fertilizer for more expedition you may have two hands), will put in ten acres a day, which in the old broadcast way would require five hands and three horses—and it will save one-fourth the seed and do the work more perfectly than it is possible to do it by hand. The binder will put in shock twenty acres of wheat per day with four hands and four horses (these horses during harvest being otherwise idle), when in the old way with the cradle and rake it would take sixteen hands to put in shock twenty acres, and that very imperfectly done, the binder saving fully one bushel of wheat per acre more than I have ever seen done by hand. The mower with two horses and a man will cut eight acres a day, more than six hands will cut with scythes. The grass-seed sower will, with one hand, sow ninety acres per day, as much as four hands will do in the old-fashioned way, and distribute the seed more perfectly than it is possible to do by hand, and save fully one-fourth the seed, at a cost for the implement of $10, and it will last a man's lifetime. Thus by preparing our lands for the use of these implements (no preparation is necessary for the latter), our proximity to the seaboard will enable us to compete with any section of the country that has not a market at its door in the shape of a large town or city. Why can't we have a manufacturing town at our doors in every section of our State?

This brings me to the second proposition—to encourage the establishment of factories for all these machines, and for the manufacture of all the raw material of whatever sort produced in Virginia, and a great deal produced out of it. I take the broad ground that there is no country on the earth that ships out of it all the product of the soil, whether *agricultural* or *mineral*, for manufacture that can long live and prosper under the depletion. The minerals, though said to be *inexhaustible*, will of course be gone in time. The soil will much sooner be depleted of its possible agricultural resources unless you return something to it. How can you most economically and profitably do this? By establishing manufactures and building up towns and cities in your midst, and saving the offal to return to the soil. We are now cutting down our forests, shipping away our hickory for spokes, our white oak for cars and ship-building, our poplar wood for paper, our maple and walnut, &c., for furniture, our sumac for tannin, our iron and copper ores for smelting into metal, to cities outside of the State, and some of it to foreign countries to be manufactured, when it should

be done here at home; and, worse still, we are sending our meat, our wheat and corn, and our vegetables and dairy products all to feed operatives in manufacturing cities, which should be consumed in cities and towns here, thus saving the enormous cost of transportation, and better still the offal of all these products to return to the soil.

THE SOUTHERN PLANTER.

[We are indebted to the *Lynchburg Advance*, of July 30, for the following complimentary notice of the *Planter*. We publish it not so much for its kind words, which are pleasant enough, as for the sound and practical advice it gives the farmers on the value of agricultural reading.—Ed.]

No business, profession or trade can be carried to perfection and made most profitable without a special literature of its own. The foundation may be gotten from elementary books or from actual experience, but every man who would excel, or even succeed, in anything requiring labor of mind and body, thought, calculation and experiment, must have the current information of the day—must have the views and experience of the best men of his class. A lawyer who does not know what the courts are doing every day, as the legislature does, would soon get out of court. A merchant who did not keep himself posted about the manufacturing and importing of the goods he sold, would have to keep a shop. The farmer must read in these days,when he is called to save every possible expense—stop every leak—use the best implements, seed, team, and to diversify his crops. The truth is, the farmer, grazier and planter, to say nothing of fruiterer and dairyman and butcher, is compelled to have a greater amount of current reading matter than most workmen. A small elementary library will suffice for his wants. One or two standard general works on soil manures, plants, fruits, stock, &c., will do, but he must have daily, weekly and monthly readings and information, if he intends to keep up with and get the advantage of improvements, markets, new crops, new demands, new implements, fertilizers, &c. A daily paper contains much that is valuable to the farmer and agriculturist, and they have saved planters and graziers many a dollar. A weekly paper, selected with special reference to the business engaged in, is indispensable, and then there should be a monthly magazine for information and reference. We do not see how a Virginia agriculturist, who can read, and get his bread out of his land, can do without the *Southern Planter*. Those who tell you that a weekly paper (and the *Advance* is as good as the best for this purpose) supplies the place of an agricultural magazine, show their ignorance, and shows that they are not competent to make their own weekly what it ought to be.

The agriculturist wants something—needs something—and if he has sense enough to be a good farmer, planter, stock-raiser or fruit-man, he knows that he ought to have a work in which men of brains, leisure and information give to their brethren the benefit of their thoughts

and experience. Now, we have, for many years, been a reader of the *Southern Planter*, the old and new—read it when a matter of business, and since, when a work of pleasure, and we unhesitatingly say every man who is lookiug to his land for a living, and can read his Bible, and can borrow one dollar and twenty-five cents, should at once take the *Southern Planter*. Our agriculturists will never take and maintain their proper position until they give more thought to their business, and test and support their thinking by proper reading.

"THE SURVIVAL OF THE FITTEST."

Now that farming is getting to be equally as scientific a pursuit as any other, it behooves every man who relies upon the products of the soil for a support to keep his brains as active as his muscles. The very fact that farming is now being done so successfully by scientific experts, while, on the other hand, those who continue to plod along in the old ruts are slowly perhaps, but surely getting poorer, is an unanswerable argument in favor of what certain ignorant prejudiced persons are pleased to sneeringly term "book farming."

The man nowadays who effects to think lightly of improved processes and methods will ere long work out his own destruction, and exemplify to his sorrow the natural and unescapable consequences of his own narrow-mindedness. In other words, as was recently stated by our valued correspondent "Steele's Bayou," the farmer who is satisfied with an average crop cannot make any money, while he who falls below it is doom to certain ruin. We might as well look at this matter in its true light. "Men cry hope, hope, when there is no hope"—where the words of a great patriot at a time when political revolution was imperative. The same situation to-day exists in agricultural methods here in the South. There must be a revolution or we are ruined.

Now there are a few men in the South who are making agriculture pay better profits than can be got out of the same capital and labor in any other pursuit. There is Furman, for instance; and Furman's success will this year be equalled by several of his imitators. High cultivation, intensive farming and improved labor saving implements—these are the three things to be studied by the farmer as the preacher his Bible, or the lawyer his Blackstone. There is just as much opportunity for distinction and success in the agricultural as in any other profession. The fittest, the most active, the most scientific are going to survive, the balance are going to perish.

Let no one delude himself by imagining that the scientific farmer is a mere theorist; on the contrary, he is the enemy of all theoreis that are not supported by facts. The ignorant are always the most incurable of theorists, for they cling to methods that experience has proven the futility of, and trust to the occurrence of impossibilities whereby to retrieve losses. "Oh, well," says your mossback theorist, "cotton, I firmly believe, will be higher next year and I am going to make a big crop

and eome out all right." This is the man, too, who attaeks everything ealeulated to improve his own eondition, and delights in terming real seientific methods "new fangled notions." Poor deluded man! He has forgotten that trite but true old saying, "The proof of the pudding is in the eating!"

Now here is an example of what a seientifie Virginia tobaeeo raiser has done, and yet most of his neighbors on the very same kind of land, and with the same seasons barely kept soul and body together. We quote from the *Rural Messenger* as follows:

"It is eustomary for idle men and bad managers to say there is no money in farming in Virginia, but every observant man knows that labor and good management will tell, and of this, another evidenee was afforded by the sale on change yesterday by J. J. Wilson, Son & Co., 2,963 pounds of fine sun-cured tobaeeo for $879.53, an average of $31.54, per 100 pounds. This tobaeeo was raised by Mr. J. T. Watkins of Louisa eounty, on 4 aeres of ground, by his own labor and that of his little son, netting him eonsiderably more than the $700 paid a short time sinee by Mr. Watkins for the entire farm. With such examples of what may be aeeomplished by industry and skill, who eannot be made to believe that farming will pay in Virginia, and will not more of our tobaeeo growers resolve this year to try by taking speeial pains to equal the sueeess of Mr. Watkins."

Though the details and methods by which four aeres of ground were thus made to produee a crop worth $879.53 are not given, yet we may rely upon it scienee was at the bottom of it.

The agricultural journals of the eountry abound in lessons to the inexperienced. The *Planters Journal* has eontained detailed aeeounts of how various farmers have reeently eelipsed all previous reeord, and not a man of them failed to follow the seientific methods. Meantime those who sneer at "book farming" are not only following in the same old losing path but trying to diseourage other people from having anything to do with the "new fangled" ways. How true it is that misery loves eompany.

There is but one way out of the woods, and that is by the path of knowledge. Our farmers must read and think more. Of eourse we do not mean to say that every thing that one sees recommended should be done; but where credible evidenee is given of profits having been made by this or that method, it will pay the farmer to experiment with it. There are several kinds of experiments and while some are too expensive, others need not be so. The man who should sow a ten aere field in some untried erop—jute for instanee—would be making a fool of himself; but if he was to sow a square rod or two of it he might be aeting wisely. The soil, climate and other eonsiderations may cause very different results in different loealities; henee the wisdom of experimenting on a small scale. If it pays, then go in more extensively next year.

In making experiments, however, there is no speeified rule that should be followed. Judgment must be employed here as in everything else that leads to sueeess or profit. If a eertain plan has proved profitable on a soil and under elimatie eonditions similar to yours, then an extensive

experiment may be tried; otherwise let barely enough time, ground and money be used to make a fair test.

One of the most important things to be considered by the farmer who is making an honest effort to farm intelligently, is the character of his sources of information. Unquestionably the best of all knowledge is gained by experience, but where we can get the benefit of other people's experience, it is often far more economical. Now the question arises how best to do this. A very successful Illinois farmer declares that he has outstripped all his neighbors by reason of having made it a point to visit fairs and expositions where he examined the products displayed and talked with men who raised them, learning thereby not only the merits of various implements but many valuable details as to their use. A contributor to that excellent publication, the *Kansas Farmer*, states that he has doubled his income by systematic investigation of what he reads—which of course amounted to many pages every month. Agricultural societies and granges have proven most efficacious in disseminating useful agricultural information.

In the South, however, the farmers must at present depend more upon agricultural journals than any other source of knowledge. If he acts wise in selecting these, he may make great headway in scientific farming without any other aid, except of his own good judgment. If, on the other hand, he should subscribe to irresponsible publication, she is liable to be lead into making serious blunders. There are several very excellent publications devoted to the interest of Southern agriculturalist that we should be glad to see in any home that the *Planters Journal* enters, for the old saying about two heads being better than one may be paraphrased with propriety so as to refer to two or more agricultural journals. One daily newspaper may be relied upon to give most of the news; but no single agricultural journal can cover more than a small fraction of the field to which it is devoted.

If our farmers would only rise to a realization of the dignity of their calling and honor it as it deserves, there would soon be a thorough change in the ways and means by which the soil is expected to reward its tiller. Let every farmer and every farmer's wife endeavor to live up to the motto, "Excelsior," and a new era will soon dawn upon this fruitful, but much abused and neglected land.—*Planter's Journal.*

FLORIDA PHOSPHATES.

In addition to her vast herds of cattle and her numberless orange groves and truck farms South Florida will soon have developed and in operation phosphate mines that will equal, if not surpass, the famous beds that have been so profitably worked in the vicinity of Charleston.

Several months ago when the dredge, Alabama, was at work deepening the channel at the mouth of the Hillsboro', just below town, the bucket brought up large quantities of substance unlike anything else that had been previously seen in this country. Mr. Mosely, an agent

of the Ashley Phosphate Company, of Charleston, obtained specimens and had them analyzed, with the following result:

Available phosphate acid	12.90
Phosphatic lime	7.95
Potash	3.70
Magnesia	2 to 4

The analysis was made by Professor Allard Memminger, of Charleston, and is perfectly reliable. It shows that the Tampa Phosphate is superior to the Ash element that has been so largely used in this vicinity, the analysis of the latter showing but 10.70 per cent. of available phosphatic acid.

This phosphate has been found in several other localities in this vicinity as well as at Charlotte Harbor, Braider Creek and Terraccia Bay, and the quantity seems inexhaustible.

The Ashley Phosphate Company has had five agents in the field for sometime, investigating the various deposits, and has already purchased 3,000 acres of land at Charlotte Harbor, where they propose to establish works at an early day.

This phosphate, we are informed, has a commercial value of $32 per ton, and is pronounced excellent for vines of all kinds, fruit trees and garden vegetables.

The importance of this discovery to this section, and to the entire country, can scarcely be overestimated. If properly developed, these phosphate beds will prove the source of greater wealth than our cattle herds and orange groves.—*Tampa Tribune*

NOBILITY OF AGRICULTURE.

Our immortal Washington pronounced agriculture "the most healthy, the most useful, and the most noble employment of man." When the war of independence closed, he was glad to exchange the sword for the sickle; when the services of the statesman were ended, he left the presidential mansion for the rural cottage. Cincinnatus, of early, republican Rome, left the plow to assume the reins of government, to save the Roman army and republic. When his mission as dictator was finished he returned to his little farm.

> Such names as these are pilgrim shrines;
> Shrines to no code or creed confined.
> The Delphian vales, the Palestines,
> The Meccas of the mind.

The government and public sentiment of China subordinates agriculture to literature alone, but exalts it over other human enterprise. If an absolute government thus honors husbandry, much more should our republican principles create a healthy sentiment to encourage and ennoble that great pursuit of the great majority of our fellow citizens. In the nature of things all men are called to earn their bread by the

sweat of their brow, on the farm and ranch, unless circumstance or special talent direct them to engage in other pursuits. The farm and ranch foster the other industries; furnish manufacturing with materials and commerce with its cargoes, and opens to nations the deepest and most permanent channels of wealth. Agriculture generates in the heart of the people the loftiest sentiments of patriotism. The patriotic struggle for American independence and the heroic achievements for the Texan revolution, were essentially trophies of agricultural peoples. The noblest pages of Grecian and Roman history are the recorded deeds of their yeomanry before their great cities had allured them from their farms and committed the farm and ranch to slaves. Agriculture forms the strongest ties of well-regulated society, and the surest basis of internal peace. Nor are there any limits set to its improvements, or profitable returns to intelligent husbandry.

Pliny tells us that four hundred stocks, ripened into ears and grown from one seed, were brought to the Emperor Augustus, and in another place he says a farmer brought the Emperor Nero three hundred and forty ripened ears of wheat which branched forth from a single kernel. With the importance and possibilities which belong to the industry of agriculture, the leading question before intelligent individuals, communities and governments all over the agricultural world, should be: "How can agriculture be improved, its farm and ranch, so as to produce another blade of grass or ear of corn on every square foot of tillable land, and how can their quality be improved?" This question should especially be put before the American people, who are, by soil and circumstances, chosen to be in the main, an agricultural people. If the political creed which sounds so sweet, "We believe in the protection of American labor," is to be, carried out by government aid, let this fostering particularly be shown in behalf of the largest class of our laborers, and the most important of our industries.—*J. J. Anderson, in Texas Farm and Ranch.*

After all, the money made by farming is the cleanest, best money in the world. It is made in accordance with God's first law, under honest, genial influences, away from the taint of trade or the fierce heat of speculation. It fills the pocket of the farmer at the expense of no other man. His gain is no man's loss, but the more he makes the better for the world at large. Prosperous farmers make prosperous people. Whatever benefits our agriculture benefits the commonwealth—*Atlanta Constitution*

One should bring about neither friendship nor even acquaintance with a wicked person; charcoal, when hot, burns; when cold, it blackens the hands.

The superstition in which we were brought up, never loses its power over us, even after we understand it.

SELF-BINDING AND REAPING MACHINES.

Editor Southern Planter,—With your consent I will give my brother farmers my experience with a Binder during the last harvest, hoping others may be induced to use them. I will say I have no axe to grind and no interest in the sale of any machine. Was raised on a farm—boy, hand, manager, and earnestly trying to make a living and improve my land. Use all the machinery I can—reaper and mower 28 years, drill, planters, hay fork, chilled plows, &c.; and this year, the first binder sold in the county. Wishing to get one adapted to hilly as well as level land, I examined six of the leading machines personally, and though all had good points and would do good work, for light draft, simplicity and ease of handling, I selected a No. 2, six-foot cut Champion, on trial, though other machines were offered at lower prices.

I finished setting up the Binder, and started it with a faint heart; but to my surprise, after a few adjustments of the canvass and tension for the bundles, it worked like a thing of life and was a success. My son, fourteen years old and quite small for his age, took charge of it, and cut some 18 acres of heavy orchard grass, 55 of wheat, and 12 of oats, averaging about 16 acres a day, with no stoppage or breakage except a small spring, which was fixed in the field in a few minutes. A Champion Binder can be used wherever a single reaper can, is simple, light draft, strong, and less complicated than any binder I have seen, and is under perfect control of the operator without leaving his seat. The advantages of a binder are: It cuts and securely binds all the wheat, and no amount of handling will untie the knot, and leaves so little scattered on the ground raking does not pay. An old farmer, amongst the numbers who came to see it, said it was a genuine hog-starver. In heavy wheat will cut as much as five cradles, and in light wheat four ditto; and three hands can shock the grain better and with more ease than five can after cradles. The bundles being securely bound, the shocks stand firmer and shelter better than when bound by hand. Twine costs from 15 to 25 cents per acre as the wheat is light or heavy, and if saved makes bag strings, and can be used in tying grape-vines, &c., and is worth one-half of first cost. The saving of grain is all the way from the sickle to the threshing machine. Have finished hauling, and not a bundle came loose, and can handle and pack one-fourth more per day and in less space.

Heretofore, I have had from 15 to 20 hands during harvest, and

great trouble and vexation in getting grain cut and bound. This season, with four regular hands, costing about 38 cents per day and rations about 18 cents, I cut and saved 400 bushels more grain than last year, when, with the same number of regular hands, I paid for extra labor, besides board, $76.00. This trouble and vexation of cuffee, and the constant waste of grain, cannot be estimated, nor the relief to to the farmer's wife and cook be appreciated.

My estimate of the saving per day is as follows:

CRADLES.			SELF-BINDER.	
4 cradles, . . .	$1 75.....	$ 7 00	1 driver, . . .	$ 38
4 binders, . . .	1 25	5 00	1 boy, ...	25
1 heaper, . . .	1 00.....	1 00	3 shockers (40c.)	1 20
1 shocker, . . .	1 25.....	1 25	Board 4 hands, .	72
1 raker, ...	1 25.....	1 25	" 4 horses,	1 60
—			Twine, 16 acres,	3 20
11 hands, board 30c. each, . . .		3 30	Oil, ...	10
Board one horse, ...		40		$7 45
		$19 20		
Add for wheat saved by binders, ($1.00 per acre, 16 acres) . .		16 00		
		35 20		
Deduct cost of binder, . . .		7 45		
		$27 75	net saving on the binder.	

Dr. Pollard thinks raising wheat will not pay in Virginia. I send you a statement of my crop this year:

No. Bush. Sown.	*Yield.*	*Cost of Fertilizer.*	*Increase.*
1—27	784	$0 93	29 to 1
2—26	473	62	18 "
3—59	96	corn land.	19 "
58	1353	$1 55	23 $\frac{19}{58}$

Respectfully, &c.,

R.

Albemarle County.

[We note some incongruities in our correspondent's estimate:

1. He has an item for board of the cradlers and attendants at 30 cents per day, and for the hands attending the binder, 18 cents per day.

2. He puts the daily hire of hands who attend the binder much lower than in the other case—notably, the shocker is put at $1.25 for the cradlers and 40 cents for the binder. Why these differences? It is evident, however, that there is a great saving by the use of the binder. A large and observing farmer informed us recently that he estimated it at fifty per centum.—Ed. S. P.]

LETTER FROM PRESIDENT WICKHAM.

OFFICE OF THE VIRGINIA STATE AGRICULTURAL SOCIETY,
RICHMOND, VA., September, 1883.

Col. W. C. Knight, Editor Southern Planter:

In order to prevent disappointment, delay or dissatisfaction among exhibitors at our next State Fair, which will take place October 31st and November 1st and 2d, and also to carry out the design of the State Agricultural Society in furnishing the fullest and clearest information in reference to agricultural and other matters, I think it necessary to call the attention of our farmers, through your admirable magazine, to the following requirements under the rules of the Society, so that full time may be given them to supply the papers and information necessary with their exhibits:

Rule 51. Exhibitors of implements or machinery will make all necessary arrangements for test-trials, &c.

Rule 52. Exhibitors of thoroughbred stock will be required to furnish pedigrees in writing.

Rule 61. Entries of fat stock must be accompanied with a statement of the kind of food, manner and length of time of feeding, the breed and age of the animal, &c.

Rule 62. Applicants for premiums on farm crops, will remember that the land on which the crop is grown must be in one piece and measured by a competent person, whose affidavit must accompany the statement; the location, kind, condition and preparation of the soil; the previous crop and how matured; the quality, quantity and kind of seed and manure used; the time, expense and manner of sowing; the cultivating and harvesting the crop, and preparing it for market; and the actual yield must be stated in writing, and sample of product exhibited at the Fair.

Rule 63. Applicants for premiums on fruit crops, must state in writing the location of orchards, the kind and condition of soil, mode of cultivation; the age, number and variety of trees, and the amount of fruit produced; and a fair average sample of the fruit produced must be exhibited.

Also, that the exhibitor must state in writing the mode of making and preserving butter, cheese and hams; and that each contestant in the plowing-match shall agree to the use of his team in testing the various plows exhibited.

It will be seen from the above rules that the object of the Society is

not merely to present to the public articles of the highest excellence, but that the most successful farmers may, by their exhibits, prove themselves such, and at the same time supply the information by which others may be enabled to attain the same excellent results from their labor. The intention of the Society is to improve the manner of cultivation and the increase of production, with the least cost and labor; to induce the largest possible display of agricultural machinery and implements and other machinery, and to provide judges of sufficient capacity and experience to decide as to the merits of the various exhibits, so that their awards may enable a farmer or purchaser to know which is the best for his purposes.

The benefits of such information they wish to diffuse throughout the State; and to assist them in this laudable motive, they ask every farmer to attend the State Fair.

My own experience, when in no way connected with the management of the Society, has been to derive the very greatest benefit, by an interchange of views with farmers from all quarters of the State, whose acquaintance I have made upon the grounds; and I think that there is scarcely a farmer in the State, no matter how skillful, that cannot thus obtain such ideas as will enable him to be more skillful still.

The railroad companies will this year, if anything, exceed their usual generosity and liberality in passenger and freight rates. Persons can attend the Fair from all sections of the State at comparatively small expense; and there will be few visitors who will not, from the new ideas and information received, find their future gain from these sources far exceed the cost of their attendance. But the constant labors and duties of the farmer's life allows few opportunities for relaxation of the mind and body; and therefore the Society considers it also beneficial to offer attractions and amusements at the Fair in connection with the wholly practical features, so that the useful may be associated with the agreeable, and that visitors may be invited by both pleasure and profit.

I would also state, that at a general meeting of life members of the Society, on the second day of November, 1882, it was resolved unanimously that public meetings of the Society should be held each night of the Fair, for the reading of papers and the general discussion of matters connected with agriculture. These meetings are open and free to all; and if any of our farmers or stock raisers would occupy their leisure time in writing down their experience, results of experiments, or any special matters to which their attention had been called, or any

points on which they desire information or discussion, it would add greatly to the pleasure, benefit and interest of the meetings. Such papers can be read either by themselves or the secretary.

I regret this extended occupancy of space in your valuable journal, but can devise no means better for reaching the citizens I wish to, and calling their attention to the fact that the Society is extremely desirous of having a very large and general attendance of our farmers at the State Fair, and a full expression of their opinions, so that the Society may devote its energies in the most successful manner to the improvement of our general agricultural interests.

Yours very respectfully,

WMS. C. WICKHAM, *President.*

SHINGLES FOR ROOFING.

Editor Planter,—If what I shall have to say should benefit every poor young man—who desires to set himself up on a farm, and expects to make a living thereon—as much as the knowledge did me when I set out in life, near fifty years ago, my object will be accomplished.

There are few men who commence a farmer's life who do not find one of the most urgent and continuous items of expense—the outlay to put and keep in order the farm buildings and dwelling-house—the heaviest expense for which is the covering or shingles. All who have had experience know that the price of heart shingles is about seven dollars per thousand, and the "last" of which is usually about fifteen or twenty years, whilst the sap shingles can always be purchased for about what the shingle-getter charges for the labor of drawing them, and sometimes for less—say $2.50; and, when properly treated with a coating of tar, will last you about forty years. In one instance immediately before my mind, they lasted up to forty-five years, being a good old covering sometime after that period, for the house, I learn, has just been reshingled about two or three years since. These are the facts, and I can't forget them. In eighteen hundred and thirty or thirty one, my father's death occurred. Not long previous, say one year, he had a lot of shingles gotten to recover the dwelling-house, selecting all the heart for that purpose. The sap shingles were thrown aside for covering a stable he was then having built. These sap shingles were all taken to a convenient place outside of the stable lot, where there would be no fear of doing any damage by the fire used in boiling the tar. A reliable negro man was placed in charge of this job. As soon as the

tar was gotten to the steady boiling point (a large iron pot being used), the work of dipping the shingles began. They were immersed two-thirds of their length in the boiling tar, and after scraping off the superfluous tar, were placed edgewise, herring fashion, on sticks of timber, there to remain till wanted for use. I think my estimates of this extra work on the sap shingles have always been about $1.00 per thousand, perhaps a little more, now since tar is higher priced than I have ever known it. W. R.

THE CROPS AND THEIR INFLUENCE.

Everything in this country of ours turns upon agriculture, and it is coming to be confessed more and more every year. According to the abundance or the meagreness of the crops are the prospects of our commerce and the returns of our varied industry. All depends at last upon these. Hence it becomes a matter of the first importance, at this stage of the year's progress, to look over the field of agricultural prosperity, not only at home but abroad, and note what are the probable results of the harvest of cereals which has been and is yet to be gathered in.

To begin with our own New England, we certainly have nothing to complain of, but, on the other hand, everything to be thankful for. The barns and granaries will be full to bursting. It has in every sense been a season of plenty. In the West, which is the great wheat and corn producing region, wheat will be a smaller crop than last year, but for various reasons there will be a surplus of it. But corn and oats will surpass anything ever known in the history of the country. In the South the cotton yield will fall off somewhat from that of last year, and will thus keep pace with the diminution of wheat.

Thus it appears that our supplies, reckoning in what remains over of wheat from last year, are not only ample but abundant, and that low prices are to be the necessary result, thus enabling the consumer to lay by money for swelling the great current of capital. The country is growing rich in spite of all that depressed stock markets choose to say to the contrary. If our harvests this year were to be smaller, it might become necessary for Europe to send us gold on account of the higher prices; but an abundant harvest and low prices are likely to obviate that necessity, in view of our increasing importation of foreign goods in payment of our exports. The prospect for cheap living never was better; with but moderate employment none need apprehend being pinched for the necessaries of life, since they are to be had at such comparatively low cost. The poor man will feel that he is better off, and thus be able to enjoy a year of contentment. Labor finds ready employment, and at better rates than ever before; it will be wise to pause and study the situation, therefore, before it demands as its reward what employing capital cannot afford to pay.

There will be enough wheat for export, and it will be needed, if present reports may be relied upon. Great Britain expects a home deficiency in her cereal products, though not to any very large extent. But that ordinarily means a good thing for this country, always provided we have a surplus for export and we do not kill our market with speculative prices. We shall export to Great Britain all we have to spare next year, on the latter simple condition. In France the harvest will in all probability be more or less short, and the same will be true of Germany. Inasmuch as these three countries draw their supplies of cereals mostly from this country and Russia, though England is obtaining increased quantities from India, it is of much interest to learn that the prospects of the wheat harvest in Russia is not encouraging for a very strong reliance on that source of supply the present year. This, therefore, leaves all the more favorable chance for the United States. Still, looking at the general condition of the world, it is not to be denied that there is a better average supply of food products than is apt to be the case. We are peculiarly well situated, both in respect to exports and to home consumption.—*New England Farmer.*

HOW TO KEEP UP FERTILITY.

One of the most important and at the same time most difficult questions for the farmer to solve is, How shall we keep up the fertility of the soil? With the farmer who makes stock raising a prominent feature of his business, this ought not to be a difficult question, but, unfortunately for the welfare of our section, stock raising is not a prominent interest. And what makes it still worse for us, not only is there little in the shape of animal manure being returned to the land, but the crops produced are of such a kind that the valuable elements of plant food are fast conveyed from the farms and sold in the market. Our soils are undergoing a rapid depletion, and but little is restored to them in animal or other manures. Of course this cannot go on. Something must be done to restore what has been lost, and if possible increase the fertility to a higher producing capacity.

In this dilemma the first resort is likely to be artificial fertilizers in the form of phosphates, chemicals, &c. In a word, "patent medicine for a sick soil." Now these are sometimes well enough for special purposes; when one is more anxious about immediate results than permanent improvement, they are not reliable, and applied in the small quantities usually recommended, are wholly inadequate to accomplish any lasting good. Their cost is too great to justify using in quantity large enough.

What, then, is the farmer to do? The cheapest and quickest method of improving land known to us is, by means of green crops turned in upon the land. And one of the best of all green crops is the field pea. Nothing else grows in so short a time or so effectively shades the land, and nothing adds more valuable elements of plant food to the soil than

this. It is the poor man's fertilizer because so cheap, as by it he may compete with his rich neighbor in improving his farm. The coming month, June, is the time to sow the seed, and the crop will be in condition to turn down in August or September.

And during the leisure intervals of summer and autumn, muck from the swamps and mould from the forests may be carted out, either directly upon the land or to the compost heaps. Both are excellent after they get thoroughly mixed with the soil, and a little applied every year would go far to keep up fertility without the addition of other manures. With lime or ashes, either of them makes a perfect manure, adding to the soil everything that crops need. We cannot say too much of these manures as means of permanent fertility, the more so as they are so cheap, and so abundant. The manurial elements of most farms are enough to keep them rich indefinitely if proper use were made of the same. It is not a hard matter to keep up fertility. —*Weekly Index-Appeal.*

CLOVER IN THE CORN FIELD THE ONLY HOPE OF RESTORING OUR EXHAUSTED LANDS.

Any one who would walk through the wheat field where clover was sown in the spring and observe its present scorched and withered condition, would not wonder that we are seeking some better method of raising clover than sowing it on small grain in the spring. The young clover plant is not adapted to struggle with our burning suns and parching winds of July and August. As long as we persist in the practice of sowing clover in the spring, it must be a very uncertain crop.

Let the corn be laid by nicely, and the land in a *smooth, even, pulverent condition*, if not sufficiently fertile to bring clover, the application of 400 to 500 lbs. of the flour of S. C. Bone and Potash mixture, when the corn is planted, and clover seed when the corn is laid by, and you may rest assured you will get a stand of vigorous clover plants, that will yield a crop equal to any that can be grown. There is no necessity to seed anything to protect them. We have had the seed lay in the ground six weeks before it came up and then make an elegant growth before winter, and equal the spring-sown clover in its growth the next spring.

Last week of July, 1882, we seeded clover in the corn field on the poorest land on the plantation, and the 16th of last May on the poorest places I measured clover 26 inches high, and the growth of the lot equalled that on our premium wheat lot seeded in the spring.

For three seasons we have seeded clover in the corn field with equal success, and have become fully persuaded that the method is perfectly

reliable, and affords us a sure remedy for the restoration of our poor lands, when the S. C. Bone Flour and Potash mixture is used on the corn. And here let me say our experience fully justifies all that Dr. Elzey claims for fine ground S. C. Bone.

I believe that the application of 200 to 300 lbs. of the above mixture to hay meadows will do more to thicken and invigorate than sowing fresh seed. G. B. STACY.

[We are obliged by this communication, and our readers will be equally so. It states distinctly a fact in reference to clover about which differences of opinion exist. It is also a direct answer to the third enquiry of our correspondent, F. L. Taylor, Esq., in our last issue.—ED. S. P.]

A PLEA FOR MORE SMALL GRAIN AND GRASS.

The time has now come in the history of Virginia when our people should seed more *small grain* and raise more *grass*—especially those who have a large proportion of their lands lying idle because too poor to cultivate in any crop profitably with hired labor. The old idea so long entertained by our people that grass could not be raised successfully in Eastern and Southern Virginia, *has been blasted*, for to day can be seen hundreds of fields of clover and beautiful meadows of timothy and other grasses in almost any portion of the State, which a few years ago was covered with broom straw and old field pines. And while I write I have only to raise my eyes and behold a large field that a few years ago was too poor to raise a fair crop of *hen nest grass*, now covered with clover, and its bottom lands well set in timothy and red top, and barns well filled with the choicest hay just harvested from this one almost barren field. Contrast this, and other fields like it, to day with their appearance a few years ago, and tell me we cannot *improve poor land* or raise *clover and the other grasses in Eastern Virginia.* Away, then, forever with this most hurtful and suicidal old notion, and rise up brother farmers and strike out on a new system that will not only enrich you and your lands, but your children will bless you, and the world will honor you for causing a *thousand* blades to grow where only one grew before.

Now the question is, How shall all this be done? 1st. We would say first of all, thorough cultivation and pulverization of the land before seeding. It is said of the late General John H. Cooke, of Bremo, one of Fluvanna's most successful farmers and honored citizens, that when on one occasion his manager reported that he had finished making a certain field for *wheat* was ordered to return and *make it again*, stating that he could take the barren dust of the road and grow wheat in it, simply because it is fine, and that it was not so much the soil, but the

condition of it, that made the yield. We have known of a great many failures in a crop of wheat because of a failure on part of the farmer to prepare his land thoroughly and in proper time, especially his fallow ground, which should always be refallowed and raked thoroughly in August or September. The better plan is to fallow the field in early Spring, as it is very uncertain about getting sufficient rain in summer to break a sod. Besides it is almost impossible to get land in order if fallowed late, and the crop is diminished just in proportion to the time of fallowing it. This fact we have frequently seen demonstrated. Corn and Tobacco do not require so much preparation, because in the process of cultivating these crops the land becomes fine.

2nd. The time and mode of seeding wheat is of great importance. And in answer to the former will say that my experience and observation prompts me in saying that from the 1st to the 20th of October is the *best time* for us in Virginia. And as to the mode of seeding, I unhesitatingly assert that the *drill*, with fertilizer and grass seed attachment, is of all implements the *most valuable* to successful wheat growing, because it sows wheat, fertilizer and grass seed all at the same time, and a man and a boy will sow 10 to 12 acres per day, and the work is more evenly and uniformly done than can possibly be done by hand. Besides the drill will save at least a peck of wheat per acre in the item of seed, as three pecks seeded with drill will be as thick as four pecks seeded broadcast, and in a crop of 50 or 100 acres we save these many pecks, and in the item of fertilizers we will save at least 50 lbs. per acre if put in with drill, because it is all applied directly under the grain, and none is blown away to the woods or roadside. Then the wheat comes up in a small trench, and is thus protected from freezing and spewing out in winter.

3d. The cost and kind of fertilizer to be used is, after all, perhaps the most difficult question the farmer has to solve. This he must determine by actual test, but theory and practice both agree that the fertilizer containing the largest amount of bone phosphate of lime is best suited for grain and grass. The fertilizer that we have been using for several years in this part of Virginia for wheat and grass, and which was used in the clover field alluded to above is, Orchilla Guano, which seems to be specially adapted to the production of grain and grass which we might reasonably suppose from its large percentage of bone phosphate of lime; and it is to this guano many of us are indebted for the greatly improved condition of our lands and our beautiful fields of grass; and better still, we find its effects are permanent, and are seen several years by a single application.

Now as we have thoroughly prepared our land, seeded our wheat and fertilized it, we must look to seeding the land to grass if we would realize fully for our careful preparation and outlay for fertilizer. If you wish to sow any portion of your field in orchard grass, timothy or red top (herds grass), the best time to do so is when you sow your wheat or before the land has a rain on it after seeding wheat; but if you wish to put it in clover, which is of all other grasses the *greatest improver of the soil*, I unhesitatingly say that from experience and observation that from the 10th to the 20th of February is the safest and best time to sow. And you can either rake or not as you choose.

When harvest comes, provide yourself with a reaper, and take your time and cut your wheat with as little extra labor and expense as possible. You can well afford to do this, because it matters not if a portion of your field gets so ripe that the heads begin to tuck, as the reaper will cut every straw, which would not be the case with the cradle. Then when you get ready to thresh, patronize the steam thresher or buy one yourself (and a baling machine too) and have the bulk of your wheat threshed in the field and carry the straw from the separator to the thinnest portion of your field and spread it on the young clover which is struggling for life under the scorching rays of a July sun. Thus you save the life of the clover and utilize the straw as a fertilizer in its most valuable condition. The straw carrier which we have seen used for this purpose is a very simple contrivance. A pole 12 feet long, 6 inches in diameter, with four wooden spikes sharpened put in it with an $1\frac{1}{2}$ inch auger, all on a line, which runs under the straw as it is drawn by a single horse over the pile by means of a rope about 20 feet long attached to each end, and in the centre of this rope the singletree is attached, the spikes running under the straw and the rope over it holds it in place, and thus quite a large pile is gracefully carried several hundred yards by a little mule and a small boy. Two of these are sufficient to move the straw from any steam thresher, and all the expense of stacking straw and hauling it out in winter at a much greater cost, is dispensed with. Begging pardon for this much longer article than we intended, and my best wishes for the success of the *Planter*,

I am yours truly, FLUVANNA.

[The very interesting article from our correspondent, *Fluvanna*, meets our views in many particulars. It comes in time to meet a recent enquiry made to us on the subject of *grass* and the methods of its seeding, which we have been unable to reply to. The principle he lays down, that for both grain and grass the *phosphates* are to be relied on, is a fact that observing farmers are accepting, and is sustained by the best scientific research. The *Orchilla Guano* he alludes to is advertised in the *Planter*, and so far as our information goes there is nothing richer in the phosphatic element, besides having several valuable *saline* ingredients.—ED. S. P.]

A NEW DEPARTURE IN WHEAT GROWING.

The following from the editorial department of the *Kansas Farmer* of July 11th, is commended to the careful attention of our wheat growing readers, as the accidental discovery in the first instance, but fully tested by years of experiment, of a method of seeding winter wheat which removs largely the danger of injury by winter killing, and permits natural influence and causes to do a needed work in adding additional soil to the roots of the plant just as needed and when most needed. Simple as the method of Mr. Smith is, it seems probable—in fact almost certain—that if universally adopted it would add a large percentage to the average yield of winter wheat per acre. On spring wheat its effects would probably be less marked. But by compacting the soil over the seed it would secure a more uniform germination and growth, which would tell upon the yield at harvest. The reduced quantity of seed per acre is also an important element. If two pecks per acre will produce as good or better crop then five, the extra three pecks can be saved for the miller. The article is as follows:

P. H. Smith, a farmer of Shawnee county, this state, having observed that wheat which grew in tracts made by wagon wheels that had beeu driven across a wheat field immediately after seeding, was better than that not in the tract, was induced to make experiments in the same direction. His experiments were made with iron wheels following seed drills to press down the earth on the seed. His first experiments were made five or six years ago, and he has continued them every year since with continuous success. His most difficult problem was to get the seed thin enough. He has harvested heavy crops every year, and has been reducing the quantity of seed for each successive seeding. Last year he sowed one field of about 65 acres drilling one-half bushel to the acre. There is in this office now on file an affidavit of Edward McCormick, the man who drove the drill, that the quantity of seed sown on that field was as above stated. When the seed had sprouted and was up nicely, the editor of this paper went to look at it. That was Smith's "wheat field." We published our observations and conclusions in our next issue and promised to report again in the spring, which we did, and again at harvest time, which we now do.

Last Friday, July 6. the wheat was being cut and threshed, and we had no opportunity to see the final result. The wheat stood very evenly on the ground. The straw was not large, nor were the heads heavy. It was simply a good stand of very evenly matured May wheat. (The seed was sown in the early part of October.) We have often seen longer and heavier straw and heads; but we have never seen a more regular stand or even growth, and we have not seen a better wheat crop anywhere in a ride over a dozen good wheat countries this year. The straw was clean and soft; and all stood up well. It was truly a beautiful field of wheat.

We watched the threshing and tried to estimate from appearances what would be the probable yield in bushels per acre. Our guess was

about 30; but, being particularly anxious on that point, we are gratified by the report of an actual measurement, as follows:

Mr. Smith reports in person (Monday July 9,) that, with the assistance of two persons, he measured one acre of shocks and bundles, hauled them to the machine, threshed the wheat out and measured and weighed 56 bushels and 30 pounds. On our expression of surprise and doubt, he promised to have the whole field measured by disinterested persons, and the exact acreage, together with sworn statements of the actual yield, will be furnished us for publication.

These experiments of Mr Smith may be regarded, we believe, as going far towards solving the problem of successful wheat growing in *Kansas*. [Why not elsewhere.—Ed. F. R.] Last December, when we first looked at the field, we saw nothing but the clean, dark colored ground. We were looking westwardly, and the drill had run north and south. The wheat blades were lying in the deep furrows left by the roller wheels, and carelessly resting on the sides of the ridges. The winds, the freezing and thawing, and rains and snows of the winter, instead of lifting the wheat roots out and blowing them away, left them more and more protected by drifting soil gathering over them and around the stems. At our spring visit, the ridges had all been worn down to a general level; the plants were vigorous; not a dead one visible, not a root blown away. Now we see a yield of 50 bushels to the acre, weighing 61 pounds to the bushel, and that, too, from one-half a bushel of seed per acre.

CANNING BUTTER.

The *National Live Stock Journal* answers a lady correspondent as to how she can keep butter perfectly sweet from June to December, as follows:

Take some unused fruit cans—quart and two quarts—and they offer precisely the means for preserving butter. When the butter is worked ready for packing (and this should always be done the day after churning) make a small muslin sack, about a half an inch smaller in diameter of the same depth as the glass fruit can she will use. Put this muslin sack into the can and fill it with butter through the mouth of the can, using a small rammer to press in the butter till the sack is full up to the neck of the can. About 3½ lbs. may be put in the sack for a two-quart can. When the sack is filled firmly with butter, fold over the upper edges and place across the top of the sack a strip of wood that has been soaked in brine. This is to keep the sack from rising to the top of the brine. Now pour in strongly saturated brine made from butter salt, and fill the jar, over the top of the sack, completely full; now screw on the cover, air tight, and it is prepared for keeping six months or a year as completely as you can keep fruit put up in the same can. These cans, filled with butter, should be set in a dark box in the cellar. This butter may be taken out through the neck of the can with a tablespoon, and it will be found as fresh, rosy and delicious in flavor as when first put up.

GOOD MANAGEMENT BRINGS GOOD LUCK.

Some people are always talking about their "good" or "bad luck." If they happen to plow their land too wet or too late, or neglect to drain it properly, or to select the proper kind of seed, or to get it planted at the proper time and manner—if their crop fails—then they say, "We had such miserable luck," while their neighbor just over the fence, who had his land well drained, plowed it and planted it at the proper time and in a workmanlike manner, was careful in selecting his seed, his crop came on, was well cared for, and produced abundantly. Then comes this grumbler, wading through the briers and weeds on his own side of the fence, and, looking over at his neighbor's fields, he says: "Well, did anybody ever see such luck? He always has good luck. Just look at his crops and just look at his pigs. None of his pigs died last spring; while I had the worst luck in the world; I lost nearly all mine. That big snow-storm came, and I was not looking for such a thing, and I had no shelter for them, and they perished. O, such luck! And he had the luck to have his all up around the barn, and they were sheltered, and he never lost one.

"Why, sir, three years ago both of us bought new self-binders, just alike, and we cut the same amount of wheat each year, and he has never been to a dollar of expense about his machine, (only he went to a heap of trouble building that shed for his, which was more bother than it was worth;) and this year he just run his machine out and cut seventy-five acres of wheat and never broke a thing; just the best luck in the world.

"And, sir, when I went out to hitch up to my machine, under that big elm tree, where it stood last year, I found that the boys had forgotten to take off those plagued elevator bits, and they were rotted in two, and I had to go to town five days, before those fellows that sold me the machine could get them from the factory, and they cost me $20 besides, and my wheat got dead ripe and straw broken, and I lost a lot of it; and such other luck as I have you never saw. I tell you, when a fellow's luck turns agin him, 'tis not much use to try.

"Just look at my neighbor.

"He's got board fences along the road and every thig nice, and he runs to every picnic and fair and farmers' club meeting that goes on. I tell you, I don't have time to run about that way and sit around and read newspapers. And he gets his gals pianers and his boys buggies, and sends 'em off to college. If he had such luck as I have he couldn't do it. Why, just look at him; he has not had a bit of bad luck since he lived here, and last fall I lost the best horse I had. The stable door got broke down two years ago, when that Johnson boy worked here—the good-for-nothing scamp—and I had sort o' neglected to fix it, being so busy all the time, and my big bay mare got out and got over there where that place is so low in the fence, and she eat so much green corn that it killed her, and I had refused $200 for her just the week before. Oh, I tell you, I have had nothing but bad luck! Why, just this spring the sheep got in and just destroyed that piece of corn

back of the house, and they just ruined my young orchard. And such luck you never saw.

And thus he will go on for an hour to every one he meets, when, if you will just look a moment, you can see there is no luck about it, but simply bad management. Now, instead of having an old horse-shoe hanging over the door, this motto ought to be hung up in every house and in every farmer's barn and crib: "Good management always bring good luck."

Jamestown, O. M. A. Paxson, *in National Farmer.*

FARMERS AND THEIR WIVES.

Farmer's wives are human beings as well as the men, but are not always treated as such. They have to work and toil, and don't always see as much of a happy life as they should. They are confined too closely to the house and largely deprived of the out-door air and sunshine. The Farmer who is interested so much in his farm and making money that he thinks little about his wife, should remember that her work is as hard and very monotonous, and when he comes in from his work at night he should have a pleasant word for her. If she has a good supper, and things look neat and tidy about the house, he should take notice of it. Farmers should take their wives out riding more than they do, give them pure air, and let them see more of nature and the glorious things that God has made for all to enjoy.

If your wife is a lover of flowers, don't hoe them all up and let the stock into the yard. But take an interest in their welfare; spade up the flower beds; buy her seed; set her plants out, and when you see the chickens in the flower-beds drive them out.

Another thing is, see to it that your wife has spending money; nothing that a woman hates more than to have to go to her husband continually for money. Women are made to spend money as well as men, and they should have it. They earn as much as the men if they do housework. Also let your wife have her own way just a little, and don't try to run the farm and the house, too. If the men would only think how valuable a wife is they would always treat them as angels, and as they do during courtship. When house cleaning time comes don't scold, but take hold, help her put down the carpet, and see to it that she don't overwork herself, and when blue Monday comes around help her and see that she is helped; don't get angry because dinner is late on Monday, but whistle or sing or read the *Country Gentleman* and compose yourself; you will feel a great deal better than if you scolded your wife and made her feel unhappy all the rest of the day. If you want any advice, don't run over to a neighbor, but go to your wife. Another thing men do which is unpleasant for their wives is to take them to town in mid-winter, and if they meet a farmer they will stop and talk with him for two hours and forget that the wife is freezing. Talk about women being great talkers! They can't beat the men when they get excited. One more thing I almost forgot to say: it is not to let your wife milk and chop wood just because she is a farmer's wife.

See that she has plenty of wood and coal, not half a mile away, but near the house. It will save her a great many steps, and when you feel lazy, bring in water and wood, and it will revive your spirits and you will have a clear conscience. Let her have the butter money if you can't afford to give her cash out of your own pocket. See that your wife has good magazines and papers to read, and don't be afraid to make it pleasant for her.

CANNING FRUITS AND VEGETABLES.

Having the cans, or jars, the operation is simple. The fruit, whatever it may be, in a syrup just strong enough to properly sweeten it, is brought to the boiling point, and it is at once placed in the jars, previously warmed with hot water, and when these are well filled, the cover is screwed down tight Good jars, well filled with boiling fruit, and promptly covered by screwing down the caps, will insure success. Many years ago, when canning was not so general as it is now, we showed how any common wide-mouthed bottle could be used, but at present, jars made for the purpose are so cheap, that it is not necessary to resort to any make shifts. Among the first things to be put up in this manner is rhubarb. This can be readily canned, and green gooseberries may be treated in the same manner. Strawberries and raspberries come next, and are better preserved in the same manner than by any other, but these, especially the strawberry, while vastly better when preserved thus than in any other manner, come far short of retaining their original flavor. Peaches are easily preserved thus, and are nearly perfect, as are pears, especially the Bartlett, apples and quinces. One who has put up the quince in this manner, will never preserve it according to the old pound for pound method. All the high flavored apples, preserved by canning, makes a finer apple sauce than can be produced in any other manner. The usual process is, to cook the fruit, of whatever kind, in a syrup made with four ounces of sugar to a pint of water. When the fruit is cooked tender, transfer it at once to the jar, and add the syrup to fill up every crevice; if there are bubbles of air, aid them to escape by the use of a spoon. See that the jar is solid full of fruit and syrup, and up to the top, before the cap is screwed on. While fruits are easily preserved in the family, vegetables are more difficult. We have many inquiries about preserving green peas, green corn, and potatoes. Those who make a business of canning, fine green peas and green corn among the most difficult things to preserve. They can only be put up in tin cans by long boiling processes, not practicable in families. If any of our readers have found a method by which either corn or peas can be preserved by any process practicable in the family, we ask them to communicate it, for the benefit of others. Last Autumn we made an experiment on tomatoes. Thoroughly ripe fruit was cooked as for the table, omitting butter and all other seasoning, and put up in ordinary fruit jars. About three out of twelve failed, but those that succeeded were vastly better than the tomatoes purchased in tin cans.—*American Agriculturist.*

Editorial.

AN ICE-HOUSE ABOVE GROUND.

Editor Southern Planter,—Will you please ask through your paper the best mode of making an "Ice-house above ground?" and give your own views, and oblige one of your subscribers. O. M. KNIGHT.

July 31*st*, 1883.

We gladly present this enquiry to our readers, and hope some practical information and experience will be given in time to enable the uninformed to prepare for the next crop of ice. There is nothing which contributes more to the comfort of a family than a good supply of ice during the spring, summer and fall months. In many cases the lack of this comfort is the result of neglect, or want of timely preparation. In other cases, the texture of the soil contiguous to dwellings makes it unfit for under-ground pits for the preservation of ice. It is this condition which prompts the enquiry of our correspondent.

To our mind the question is easily solved. Select a spot on rolling land, the nearest to the dwelling to be had; and if the angle of elevation or depression is from thirty to forty degrees, it will be all the better. Locate the house on the sloping ground, and let the rear be *at grade*, so as to allow all water from the ice or rains to pass off. Make a cut in the side of the hill with a level grade from the point of commencement as wide and far as will be necessary to receive the frame of the house. This side-hill excavation should be 18 feet wide and 15 feet on a level grade penetrating the hill, and will allow for a house having a cube of 12 feet, which will be sufficient storage room for ice to supply an average family. The house should be constructed in this *cut*, as follows: Have a double frame made of 3x4 heart scantling, the inner framing to form a room 12x12 feet wide and 12 feet high, and the outer framing three feet wider and higher. These frames to be faced with undressed heart boards, so that a space of *three feet* will be left around all four sides of the interior frame. This space should be filled with sawdust, well packed, and the door for the filling of the house and for taking out the daily supply as used, can be placed on the upper side and near the top of the interior room or ice vault. The earth taken from the pit should be banked and turfed on the sides, except the rear, or lower, side to allow for proper drainage, and a good roof, with projecting eaves, put over the house.

If there are no trees growing at the point selected for the house sufficient to furnish shade, they should be planted around and nurtured

into active growth. The forest will furnish them, with but little trouble in selection.

When a side-hill location is not convenient, a house, on the same plan, can be built on level ground, but it will be seen that the filling and removal of the ice will not be so convenient, as the door will be an elevated one.

We are pleased that this subject of ice for country homes is mentioned, and more so, that it comes from our brother, than whom, with ample means, no one has been more neglectful. For personal reasons, therefore, we beg the fullest information on the subject.

Since the foregoing was written, we have seen in the *Country Gentleman* of July 26, a response to an enquiry similar to the one made to us. The ideas of this respondent and our own agree very well. The brick, or stone, walls had occurred to our mind, but we failed to suggest them in consequence of their cost in comparison with wood. The fact alone of the cost of stone walls would settle the question in the minds of many farmers against such ice-houses, but the cheaper material—wood—might induce a trial, and success would insure the substitution of the more enduring material. The writer also fails to mention the hill-side location, which we regard as important.

Editors Country Gentlemen,—In reply to Mr. Pearson's letter, which you have sent me, I have to say that having had two ice-houses, made of wood, rot away, I wished to have something more permanent, and, as a stone building would be cheaper and more lasting than brick, we used stone. My theory was and is that stone walls would be no better than wood, except as to durability. My plan of construction was to make a wall thick enough to stand against wind, and on a foundation that would not allow settling. Good brick can be made to serve on a good foundation; laying the wall only eight inches thick, using good common mortar, one part water lime, one part (slaked) quicklime, and six to eight parts sharp, good sand, all well mixed before the water is added. Wet the bricks thoroughly, and allow them to dry off a little on the outside (to save the mason's hands), and lay in close, well-filled joints. In short, lay a good eight-inch wall. But to return to my stone ice-house. Wishing to have a cube of ice twelve feet on all sides, I constructed the walls fourteen feet apart, and set up some studs, nailed boards on the sides next the ice, and filled the space between this board lining with sawdust, well packed. This lining enabled us to pack the ice very easily, and for about five years gave satisfaction. By the expiration of that time, this lining was so decayed that it had to be removed, and since then we have packed our ice, leaving a space of one foot between it and the stone walls. We usually put in about three courses (say three feet), then fill the space between the ice and the walls with sawdust, well packed.

Lately I have learned to cover each course of ice with sawdust, filling all the cross-joints, and allowing the sawdust to fill the space to the wall, packing close in that space, about every three feet the ice is built up. A man walking around between the ice and wall does this packing very satisfactorily.

A little sawdust between the layers of ice excludes air, and that is one of the great poiuts in saving ice. Large ice-houses keep ice better than small ones, and this packing cross-joints and leveling up the surface by the use of sawdust is not necessary; but in small masses of ice, such as single families use, it is important.

Mr. Pearson says his soil is a stiff clay. This being so, he must construct his house above ground, unless by digging a shallow well under it he can reach porous earth that will carry off the drainage, for perfect drainage is essential. If he builds brick or stone walls, put the foundation below the frosts of the coldest winter, take out all the earth to that depth and fill the space with gravel, or other loose, imperishable material. Slag from a furnace, pieces of brick, broken stone, any such material will allow the drainage to pass through. Lay tile or other drain along the walls all around, and at the lowest point continue this drain under the wall and thence away from the building to some lower ground, or other place from which the drainage water will not set back to the ice.

I believe I have answered the questions asked by Mr. Pearson, but I have covered only a small part of the whole subject of preserving ice for family use. GEO. GEDDES.

Fairmount, N. Y.

FIRE INSURANCE ON FARM DWELLINGS AND OTHER FARM HOUSES.

We have for some time been wishing to talk, through the types, to the farmers on this important subject. Our exchanges bring to our attention, daily, losses which have been sustained in the country by fire, and almost all such announcements conclude: "Total loss and no insurance." The tax we pay on property for insurance is *self-imposed*, but is equally important as the taxes to the State or county, which are obligatory. From the latter nothing is received back but the support and protection of a good or bad government. The taxes for this purpose average in Virginia about 1½ per cent. on all property. For this, as said before, the property-holder receives no return except the protection given him as a citizeu. This is all right, as no government can exist without proper taxation. If every farmer insures against fire, as he should do, his dwelling and furniture and his most valuable out-buildings, he will have to pay on the amount of his insurance about the same rate of taxation as he pays to his State and

county combined, but the aggregate tax will be one-half less. Suppose, for example, his taxable property is assessed at $2,000 for public taxes, his annual tax will be $30. On such an assessment, covering land and other property not necessary to be insured against fire, the amount necessary to be insured may be assumed as $1,000, and the voluntary, or self-imposed, tax thereon is $15 per year. If this condition continues for ten years, then the farmer will have paid $300 for government taxes and $150 for insurance; and if at this time the property insured is destroyed by fire, he will receive $1,000 in cash. This sum, judiciously expended—advantage being taken of the style and cheapening of houses, furniture, &c., in the past ten years—can be made to double itself almost. Under such circumstances the farmer can sleep soundly, and apprehend but little damage from the torch of an incendiary, an accident from sparks, or the electricity of the clouds. But the farmer may say that he cannot afford this annual expenditure, and at the same time he should see that no money can be better expended. No property-holder in a city or town thinks of letting his house, or houses, remain uninsured; but the farmer will think this is all right and proper by reason of the contiguity of buildings, while he fails to consider that the fire companies and appliances for extinguishing fires in the city do not exist in the country, and that in nine cases in ten when a house takes fire in the country, it is a total loss. And it is in view of this fact that the insurance rate in cities is much less than in the country.

There is another important aspect in which we desire to present this subject. Insurance in this State—and when we speak of Virginia we do so for other States similarly conditioned—is solicited and largely carried by companies outside, either in other States or foreign countries. The money which is paid to the agencies established in the State by outside companies passes at once away from us, and in no way helps to build up our home industries. We are not inclined to be clanish, or opposed to the fullest competition in all departments of business; but we do say, that if good and reliable insurance companies, chartered by our own State, are to be found, they should, *at the same cost*, be first sustained. The failure to recognize home trade and business in their proper relations, has done more than anything else to effect the wealth of Virginia and other Southern States. Each State or community, so far as it has the power, should live within itself; and to do this, every legitimate enterprise should be encouraged. The same principle should be applied to the farm, which should produce its *home living* first of all, in the shape of bread, meat, and vegetables, grain and hay for live

stock, and look to dealers in the nearest cities and towns for clothing and groceries. A system which will ensure home production and home expenditures, will bring prosperity to all classes.

We have obtained from a reliable source some figures of a startling character, which will show how little our people have regarded their obligations in respect to the proper encouragement of their own local institutions, which can give full protection in all matters of fire insurance. The amounts paid in Virginia for this purpose in 1882, were as follows:

To foreign companies	$397,399 00
To companies of Northern States	284,734 00
To Virginia companies	248,340 00

By this it will be seen that largely more than a *half million* of dollars are annually sent out of the State for fire insurance, which, if kept and expended at home, would make an important item in the wealth of the State.

We can name six companies, chartered by our laws, of undoubted credit, which are able to carry every fire policy in the State:

1. Mutual Assurance Society of Virginia, whose business commenced nearly a century ago.
2. Virginia Fire and Marine, nearly as old.
3. Virginia Home.
4. Virginia State.
5. Petersburg Savings and Insurance Company.
6. Portsmouth Insurance Company.

It is therefore not for the lack of reliable institutions that so much money is annually sent out of the State, never to return, but the cause lies with our people who fail to appreciate a patriotic duty by contributing to those worthy institutions and enterprises which are located in their midst.

In our cities and towns, a fair field of competition is opened between our local and foreign companies. The large amount of insurance required on factories, stores and stocks of goods, public and expensive private buildings, may be equitably divided; but the farmers, in their isolated homes, should always see that the money they pay for the protection of their property, is to be kept in the State by being paid to a State institution.

The world deals good-naturedly with good-natured people; and I never knew a sulky misanthropist who quarreled with it, but it was he, and not it, that was in the wrong.—*Thackeray.*

The Southern Planter.

SUBSCRIPTION: **$1.25** a year in advance, or **$1.50** if not paid in advance.

EDITORIAL NOTES.

STATE AGRICULTURAL SOCIETY.

We call special attention to the communication of President Wickham in our present issue. It briefly, but forcibly, presents the objects of the Society, and the inducements offered to the farmers of the State to attend the next Fair and general meeting. The Society's first exhibition was held in 1853, and others annually since, except the years of the war and of reconstruction following it, so that the coming Fair nnmbers its *twenty-third*. During this period we have been in active connection with the Society, and are warranted, by a long experience, in expressiug the belief that no institntion has accomplished more for the advancement of the agricnlture of the State. Its work and purposes, as defined, mnst meet the approval of every unprejudiced farmer. In view of some languishment for several past years, and in a measure relieved by the present management, extraordinary efforts have been made this year to make the exhibition especially attractive, and to secure the largest attendance of exhibitors and visitors. We may, therefore, urge every farmer in the State, and all outside who can do so, to come, and they will not return to their homes without having been benefited by information gained, and refreshed and encouraged by a relaxation, for a few days, from the duties of the farm.

As the advertisement of the *Richmond College* and the *Virginia Medical College* expire with this issue of the *Planter*, we would again call special attention to them. These are both deserving institutions, and should have all the patronage they merit.

THE TANNER AND DELANY ENGINE COMPANY.

With many other citizens of Richmond we were invited, several weeks ago, to visit the newly-erected works of this company. The visit was a very agreeable one, and we were amazed at the extent, beauty and completeness of the buildings, the convenient arrangements for the conduct of all departments of bnsiness, and the new and novel machinery which has been introduced. In these respects the establishment almost "lays the Old Tredegar in the shade." There is no jealousy, however, in the case, for the first men we met in the lunch-room were General Anderson and Major Archer. Richmond is, and ought to be, the city for *big* manufacturing enterprises, and all such here now will welcome the introduction of others. The *Industrial South*, of our city, which has earned a national repntation in respect to its efforts for Southern and national development, has spoken at different times, and much in detail, of the Tanner and Delany Company's works, and we have seen them conspicuously mentioned in prominent Northern papers, so that there is nothing left for ns but to thank the company for its kind invitation and a pleasant evening's entertainment.

We thonght we were too late until we saw the advertisement of Kendall's Spavin Cure.

MAGAZINES, &c.

The *Industrial South* and the *Southern Planter* will be clubbed to subscribers at $2.50 per annum for advanced payments—the regular and respective rates being $2 and $1.25. The *Industrial South* fits its name exactly. Its editors are industrious and experienced journalists, and are devoting their minds and energies to all methods of enlightenment in respect to all the material interests of the country. It has now entered upon its third year, and already its editorial articles are copied by the press in every section of the country, which shows an appreciation of its liberal and non-sectional sentiments, and the forcible and attractive style in which they are expressed.

The *North American Review* for August is, like all issues, full of thoughtful and timely discussions; and no one of culture, who pretends to keep up with the questions of the day, can afford to be without this magazine.

The *Popular Science Monthly* for August is on our table. It is full, as usual, of good and interesting reading. Space will not allow us to specify. Send to the publishers in New York and get it, or apply to your home dealers in literary magazines.

The *Art Amateur* for August contains a striking four-page design of lilies and butterflies for a South Kensington screen panel, a design of daisies for a dessert-plate, three pages of designs and suggestions for monograms and jewelry, and three pages of wood carving designs. The most important article is an exceedingly interesting account of "Japanese Pictorial Art and Artists," profusely illustrated. There is a page of drawings from Paris salon pictures; the very creditable work of American women in the Paris salon is editorially reviewed, and "My Note Book" gives a spicy record of foreign art events. Among the subjects practically treated are landscape painting in oils, lettering on china, wood carving, and mural decoration. There are also articles of much interest on early English pottery, ornamental iron work, old illuminations, the remarkable print collection of Prof. West of Brooklyn, and numerous other art topics. Price, 35 cts.; $4 per annum. Montague Marks, publisher, 23 Union Square, New York.

Harper's Publications.—For August we have had *The Monthly*, *Weekly*, *Bazar*, and *Young People*. These are regular and welcome visitors to our table. All are interesting in their respective lines, and cannot fail to please the most fastidious reader. The *Monthly* has "The Heart of the Alleghanies," "American Horses," "Vallambrosa," "The Canadian Habitat," "War Pictures in Time of Peace," and the "British Yoke," and are all profusely and beautifully illustrated. The Editor's "Table" and "Chair" form no inconspicuous part in the matter of this agreeable number.

The *Century* and *St. Nicholas*, from the same publishing house, are valuable publications. The "Midsummer Holliday No." of the *Century* is truly an intellectual feast. The first article, "Bob White," the game bird of America, is beautifully illustrated by J. C. Beard, and all sportsmen should value it. The present condition of the "Indians in Southern California" is also handsomely illustrated by the same hand. "Woman's Reasons," a novel by W. D. Howells, increases in interest. A new romance, just begun, "Bread Winners," bids fair to rival it.

REPORTS, &c.

Rothhamsted, England.—We are indebted to Sir Jno. B. Lawes for a valuable pamphlet, 33 pages, quarto size, double column, which gives the "Origin, Scope, and Plan of the *Rothhamsted Experiments.*"

This is the most noted experimental station in the world, and has been conducted by Dr. Lawes for nearly a half century at his own expense. It has done more to advance scientific and practical agriculture in England than all the efforts, if any, of the government combined, and its influence

has been felt and appreciated in the United States as if it were on their own soil. To perpetuate this valuable institution, Dr. Lawes has made an ample endowment from his personal means, so that when his valuable life is spent, the work will go on for succeeding generations. Where can be a nobler contribution to the agriculture of the world? We shall preserve this document from Rothhamsted with especial care, and will, doubtless, have occasion to make many references to it for the valuable facts it contains.

SIXTH ANNUAL REPORT OF THE COMMISSIONER OF AGRICULTURE OF VIRGINIA.

We have received this Report from Commissioner Blanton, in which we find much of interest and practical benefit to the farmer. We hope he has a sufficient number of copies for a liberal distribution amongst the farmers of the State. After further time for examination, we may be able to make extracts, and thus help it in its good work.

REPORT OF THE AREA OF CORN, POTATOES AND TOBACCO, AND THE CONDITION OF GROWING CROPS IN THE UNITED STATES AND EUROPE, WITH A REPORT OF THE RATES OF TRANSPORTATION, ISSUED JULY, 1883.

We acknowledge the receipt of this interesting report from the Department of Agriculture at Washington.

Pamphlet of 20 pages issued by the *Southern Fertilizing Company*, entitled "A NEW DEPARTURE."

"The time is here when a man can, with the outlay of a moderate amount of money, restore his lands to their ancient fertility. Read the within, and see how it can be done."

W. C. HOUSTON, JR., & CO.'S HANDBOOK ON WOOL.

This is a brief treatise of 31 pages, bound in stiff paper, which gives much valuable information in regard to the wool trade, the localities of production, best methods of handling, &c., and is issued by the firm named, at Philadelphia, Pa.

We are frequently indebted to the same firm for the current prices of wool.

AGRICULTURAL FAIRS NOT BEFORE MENTIONED AND FOR WHICH WE HAVE RECEIVED CATALOGUES.—1. The St. Louis Agricultural and Mechanical Association, from October 1 to 6. We extend thanks for courtesies promised should we attend. 2. The Fair at Reading, Pa., October 2, 3, 4 and 5, with thanks to Secretary Cox. 3. The Frederick County, Maryland, October 9 and 12, inclusive.

THE Reports of the Commissioners of Agriculture for *Georgia* and *Tennessee*, received as we go to press, give a favorable account of all crops to July, as does the Report of the United States Agricultural Commissioner to same date; but a severe drought has prevailed since, in Texas and and the Southern and Middle States, which very materially effects the condition of corn, cotton, tobacco, and garden crops; and in Virginia, we are sure those crops are reduced one-half below the usual average. As we write now, on the 15th of August, there has been no general and serviceable rain since about the first of July. A very excellent editorial article which we copy in our present issue from the *New England Farmer*, on "The Influence of Crops," must, therefore, be qualified as to results of the year, which seemed probable at the date of its writing.

Don't Die in the House.—"Rough on Rats." Clears out rats, mice. roaches, bed-bugs, flies, ants, moles, chipmunks, gophers, 15 cents.

NEW ADVERTISEMENTS.

G. Percy Hawes, successor to Miller & Hawes, advertises the Southern Saw-Works established in 1852, and recently enlarged. Since this advertisement was ordered, these works have been consumed by fire; but the proprietor, nothing daunted, expects to have them speedily rebuilt and his work actively resumed, and therefore wishes his advertisement to keep his business before the public. We will gladly notice the resumption of business.

Stearns & Halsey advertise fertilizers, which we are sure possess decided merit. Mr. Stearns has been somewhat an enthusiast on the subject of good and cheap fertilizers. Some years ago he endeavored to form what may be termed a farmer's syndicate. His plan was to get a limited number of farmers to contribute the capital necessary for the machinery, materials, &c., which would be required to prepare a good and cheap fertilizer, and its products were to be distributed as dividends on the subscribed capital. There were farmers who approved the plan, but not enough who could spare the needed capital, and the scheme failed; but Mr. Stearns, having many farms of his own, decided to erect the necessary works on his own account; and making, by a prescribed formula, and using the fertilizer on his own land for several years with satisfactory results, he was induced to sell to other farmers, and in this way has built up one of the most useful manufactories in the State.

Dr. T. J. Wooldridge, of Hanover Co., Va., offers for sale pure Essex Pigs and choice Poultry, for which see his advertisement in this number. Dr. W. is an old and reliable breeder of these varieties, and will have on exhibition at our next Fair some choice specimens of his stock.

The Virginia State Insurance Company is one of the most reliable fire companies in the State. It is managed by the best business men of the city, and any property-holder may sleep soundly when he has a policy in it.

The Virginia Home Insurance Company is entitled to all we have said as to the Virginia State.

The University of Virginia sends us its annual advertisement for the session opening October 1. What can we say in reference to this *great institution?* except that the youths of the country should think less of *law* and *medicine* and more of the *agricultural* school.

The Virginia Agricultural and Mechanical College also sends us its advertisement. There is no institution which can, and does, more benefit to the sons of farmers and mechanics of the State.

Moses & Clemons, of this city, advertise their *Annual Bone Fertilizers*, and their list of testimonials is overwhelming from this and other States.

John Saul, of Washington, D. C., sends us a new advertisement. Mr. Saul has been in our advertising columns frequently before; and there is no florist and horticulturist we can more earnestly recommend.

Franklin Davis & Co. is now a Virginia name and institution, and belongs almost as well to Maryland. We know Mr. Davis personally, and there is no man whose enterprise and integrity in business we can more highly commend.

Mr. E. P. Reeve, druggist, advertises *Duval & Norton's Horse Tonic.* He is now the sole proprietor of the recipe for its manufacture. This tonic has been long and favorably known in Virginia for improving the condition of horses. It has also been ascertained to be one of the best cures for hog-cholera. Dr. Reeve is especially desirous of giving the fullest test of its merits in this respect.

Mr. E. F. Hankeneus, a German settler of spirit and intelligence, offers grape-vines for sale.

C. M. Moseman & Brothers' office is the head-center for all prominent horsemen of New York City. In a letter of recent date says: "We are perfectly satisfied that there never was anything made to equal Kendall's Spavin Cure, nor can there be anything to take its place, as it removes the trouble, and no remedy can do more.
Read advertisement.

Catarrh of the Bladder.—Stinging, irritation, inflammation, all Kidney and Urinary Complaints, cured by "Buchu-paiba." $1.

Strange that people will suffer with dull feelings and the blues, when they can be so surely cured by simply taking a few doses of Simmons Liver Regulator.

RICHMOND COLLEGE,

RICHMOND, VIRGINIA.

The next session begins 20th September, 1883, and continues nine months.

FACULTY.

EDMUND HARRISON, A. M., Professor of Latin.
H. H. HARRIS, M. A., LL.D., Professor of Greek.
A. B. BROWN, D. D., Professor of English.
EDWARD B. SMITH, M. A., Professor of Mathematics.
CHAS. H. WINSTON, M. A., LL.D., Professor of Physics.
B. PURYEAR, A. M., LL.D., Professor of Chemistry.
WM. D. THOMAS, M. A., D. D., Professor of Philosophy.
Professors HARRIS and SMITH, Modern Languages.

EXPENSES OF A RESIDENT STUDENT.

Two hundred and four dollars, per nine months' session, cover all the expenses of entrance fees, tuition, board, fuel, lights and washing.

Eighty-seven dollars and fifty cents will meet the expenses of a non-resident student.

Within the last year more than $30,000 has been expended in building and improvements, greatly increasing the comfort and conveniences of students, and enlarging the facilities of the Institution.

The sanitary arrangements of the College are exceptionally good.

The location is high and healthful, embracing thirteen acres of land.

For Catalogues, apply at the bookstores, or address

aug 2t B. PURYEAR, Chairman.

FOR THE WHEAT AND GRASS CROPS.

A line of Goods full enough to meet every shade of demand.

The Southern Fertilizing Co.

RICHMOND, VA.

OFFER FOR THE FALL TRADE THE FOLLOWING STANDARD FERTILIZERS:

"Anchor Brand"

COMPLETE WHEAT FERTILIZER.

Dissolved South Carolina Bone.

"B P"—Flour South Carolina Bone and Potash Mixture.

FLOUR SOUTH CAROLINA BONE.

The Company has representatives at all points of importance in the Wheat country, who will furnish these goods at bottom figures. aug 3t

GRAPE VINES

FOR SALE!

Two years old and well rooted. Very low. Address EMIL F. HENKENIUS, Bumpass, Louisa Co., Va. sep 3t

GUNS

Of every kind cheaper than ever. Rifles, Shot Guns, Revolvers, Ammunition, Fishing Tackle, Seines, Nets, Knives, Razors, Skates, Hammocks, etc. Large Illustrated Catalogue Free. Address

Great Western Gun Works,
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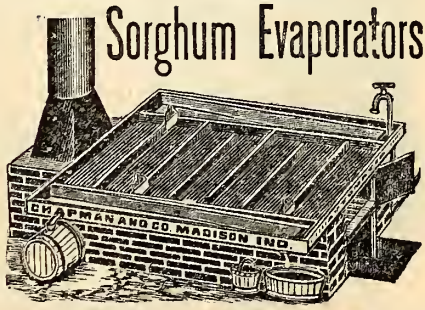

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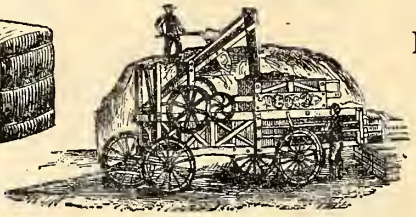

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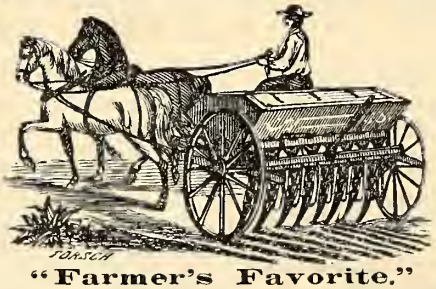

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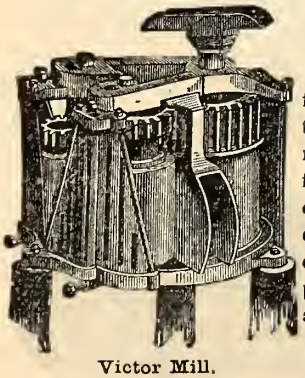

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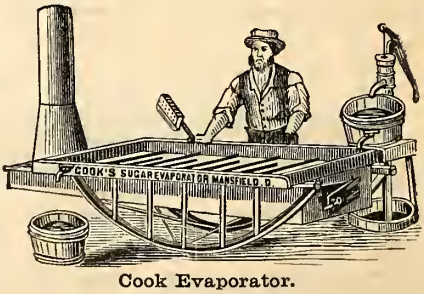

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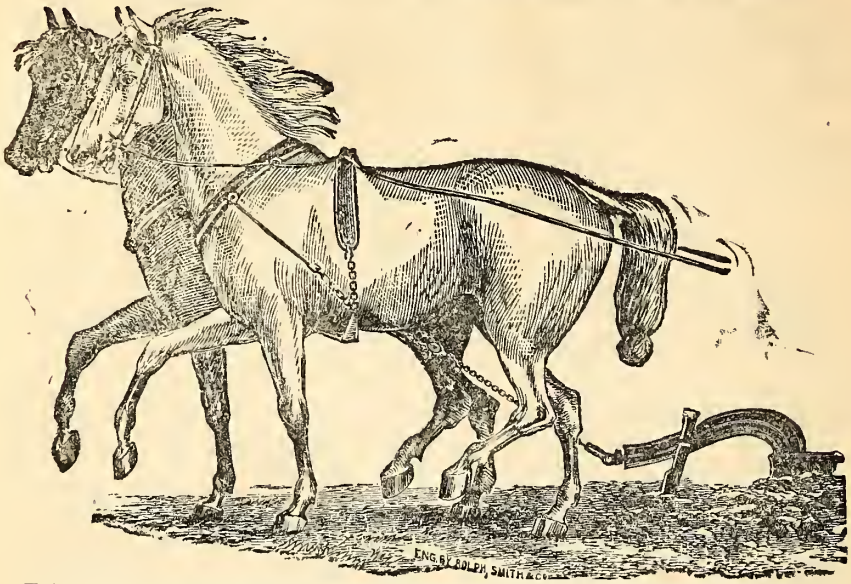

This invention supplies many advantages which cannot be enumerated in an ordinary advertisement. There being no whiffletrees or traces to load down the beam of the plow, no counter-balancing pressure on the handles is required. Orchards ploughed without bruising trees. For Gins, Threshers, Lead of Wagons, &c., it can be used to advantage.

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This is to certify that we have tried Mr. John Trible's (Coleman's Patent) Harness, and are well pleased with it; so much so we expect to use it.

JNO. M. BUTLER, W. P. BOWLES, W. S. BOWLES.

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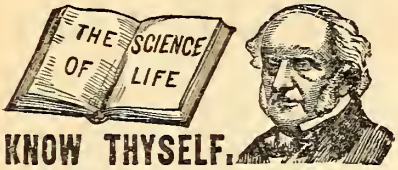

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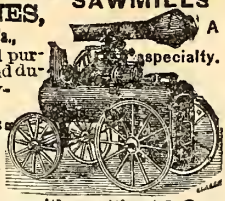

Fig. 1.

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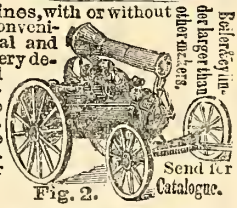

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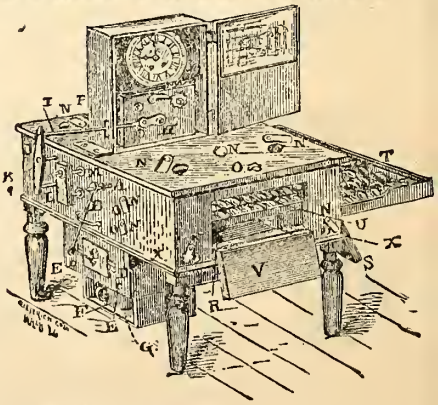

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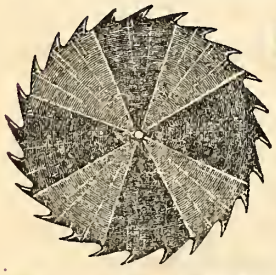

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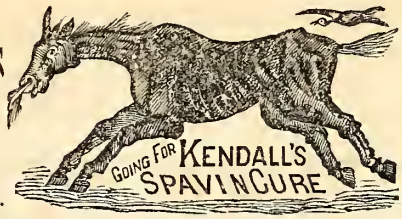

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We are permitted to copy a portion of a private letter from PROF. JOHN R. PAGE of the University of Virginia, as to practical results:

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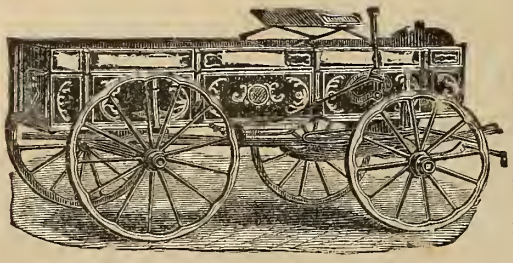

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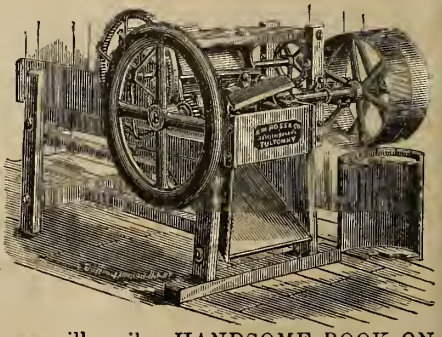

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