

Subscription REDUCED to TWO DOLLARS Per Annum in Advance.

ESTABLISHED IN 1840.

Grape & Farming
**THE SOUTHERN
PLANTER AND FARMER**

DEVOTED TO

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

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

CH: B. WILLIAMS, - - - - EDITOR AND PROPRIETOR.
WM. L. HILL, - - - - GENERAL AGENT.

New Series. RICHMOND, VA., MARCH, 1868. Vol. II.—No. 3.

CONTENTS :

	PAGE.
AGRICULTURAL DEPARTMENT:	
Our Exhausted and Abandoned Lands—What can we do with them?.....	129
Successive Crops of Oats—Their Effect to destroy Wild Onion.....	134
Leaves and Shadows for the Improvement of Land.....	138
Sheltering Cattle in Winter—The Economy of Selecting Young Hogs for Pork—Curing and Housing Oats, &c.....	141
Experiment with Baugh's Superphosphate and Old Dominion Fertilizer applied to Corn.....	143
The Percheron Norman Horse Illustrated and Described.....	146
Are Farmers Quacks?—No. 3.....	148
Report of Commissioner of Agriculture Reviewed—No. 2.....	150
Warbles—Description and Treatment of.....	156
About Weeds—What are They?.....	159
Important suggestions to those who desire to aid in sustaining the Southern Planter and Farmer.....161. Reply to F. G. Ruffin on Watt's Plough, &c.....	162
Rules for Farmers.....164. Buckwheat for Green Crop.....	164
HORTICULTURAL DEPARTMENT:	
Native Varieties of Fruit.....	165
Spring Work.....	166
New Apple.....167. Watermelon and Muskmelon.....	167
Grapes and Wines.....	169
Pindars or Ground Peas.....	170
Training and Pruning the Vine.....	172
MECHANIC ARTS:	
Routt's Improved Southern Corn-Planter Illustrated.....	177
Innovation in Mechanical Appliances.....	178
HOUSEHOLD DEPARTMENT:	
Maturing Poultry.....180. Chicken Salad and other Domestic Recipes.....	181
EDITORIAL DEPARTMENT:	
Soil, Climate, Scenery, Society, &c., of Orange and other Counties of Pied- mont Virginia.....	183
Harrowing Wheat in the Spring.....	185
Correspondence of Southern Planter and Farmer on Pea-Nut, and Tobacco Cultivation, and Inquiries about Virginia.....	189
Notices of New Publications, &c.....	190
COMMERCIAL REPORT:	191

FERGUSON & RADY, Printers, 1328 Main Street.

NOAH WALKER & CO.

WHOLESALE AND RETAIL

CLOTHIERS

1315 Main Street,

RICHMOND, VA.

Chief House—Washington Building, 165 and 167, Baltimore St., Baltimore, Md.

Branch Houses—Petersburg, Va., Norfolk, Va., Washington, D. C. feb—1y



GEORGE A. AINSLIE,

MANUFACTURER AND DEALER IN

CARRIAGES,

TENTH STREET BETWEEN MAIN AND CARY,

RICHMOND, VA.

Has now on hand a choice selection of RIDING VEHICLES of the most approved styles, consisting, in part, of

Caleches, Coaches, Barouches, Six-Seat Rockaways,
PHÆTONS, COUPÉS, and LIGHT ROCKAWAYS and BUGGIES,

Of all kinds, to which the attention of those in want of such articles is invited.
feb—1y

DAVENPORT & CO.

OFFICE No. 1104 MAIN STREET, OVER NATIONAL EXCHANGE BANK,
GENERAL AGENTS IN VIRGINIA,

FOR THE

Liverpool and London and Globe Insurance Co.

GOLD CAPITAL \$16,000,000!

Will insure on most favorable terms BUILDING or MERCHANDISE in CITY or COUNTRY. All claims paid on proof of loss without abatement for interest.

Will BUY and SELL STOCKS and BONDS and NEGOTIATE LOANS on favorable terms.

fe—

DAVENPORT & CO.

WEST & JOHNSTON

Have RESUMED BUSINESS in the NEW AND ELEGANT BUILDING
Just above the Post Office,

And offer for sale, as before and during the war, a large and varied stock of


BOOKS IN ALL DEPARTMENTS OF LITERATURE:

As also a well selected stock of

STATIONERY of Foreign and Domestic Manufacture,

Usually kept in a First-Class Establishment. A call from the Public is respectfully solicited.

BINDING and BLANK BOOKS executed to order.

 Subscriptions received for the "PLANTER AND FARMER."

ORDERS promptly attended to. Address

WEST & JOHNSTON,

mh—

Booksellers and Stationers, two doors above P. O. RICHMOND, VA.

THE SOUTHERN PLANTER & FARMER.

DEVOTED TO

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

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

CH: B. WILLIAMS, EDITOR AND PROPRIETOR.

New Series.

RICHMOND, VA., MARCH, 1868.

Vol. II---No. 3.

Our Exhausted and Abandoned Lands.

WHAT CAN WE DO WITH THEM?

No. 2.

To any one who has read the preceding paper (commencing on page 14), under this heading, the question has probably suggested itself, How are we to account for so heavy a growth of wheat-straw on land so much exhausted as the piece mentioned is supposed to have been? To this question, I know of no reply that would be, in every respect, perfectly satisfactory. Davy, and other men skilled in agricultural science, tell us that a soil which, by long tasking in a particular direction, has lost the power of producing one kind of material, has not necessarily lost the power of producing another. This is very true, to a certain extent, and hence the vast importance of a judicious rotation of crops; but whether it, alone and of itself, is sufficient to account for the increased yield referred to, may well admit of a doubt. But let us pause a moment to consider. If the teachings of science may be relied on, the corn, in the given instance of cultivation, could have exhausted but a very small portion of the inorganic matter from the soil essential to the production of the straw. Perhaps the following statement of the amount of these materials in one hundred parts necessary to each, may be more satisfactory to those who are inclined to look at things mainly in their scientific light. The corn, then, had taken up, year by year, in one hundred parts, 0.5 of sulphuric acid; 0.3 of chlorine; 0.1 of lime; 3.8 of soda; 0.8 of silicia; 0.1 of iron; where the straw required 1.0 of sulphuric acid; 0.6 of chlorine; 8.5 of lime; 0.3 of soda;

67.6 of silica; and 1.0 of iron; thus leaving behind it the very things which the straw wanted; while, on the other hand, it took from the soil just what the straw did not want, that is, 49.2 of phosphoric acid; 17.5 of magnesia; 23.2 of potash; for of these the straw required only 3.1 of the acid; 5.0 of the magnesia; 7.2 of the potash.* Science, then, tends directly to confirm the facts as I have given them. Perhaps it would be difficult to find, in the experience of one person among many hundreds, a more striking illustration of the accuracy of scientific teaching, or where that teaching chimed in more harmoniously with facts. During that long period of sixty years, the soil had been gathering in, just what was needful to the straw, and losing, in large quantities, only such things as were not needful to it. No wonder, therefore, that the growth was so great. Still, other things not thus far noticed, may have contributed to the result; such as the uncommon dampness of the season; the low, wet position of the land, always favorable to the grass-leaved tribes where water does not linger in excess. It is quite likely, however, that the comparatively deep ploughing had as much or more to do with it than anything else. As already mentioned, it was a plat of secondary interval, and the soil, as is mostly the case with such lands, was deep. The plough, even had it gone deeper, would not have reached the sub-soil on which the original deposit had been made; so that, nothing was thrown upon the surface unfitted to the sustenance of vegetable life in some form. If the reader will reflect that this ground had been previously scratched over for sixty years in succession only to the depth of three or four inches—that every year during this whole time all below that depth had been growing more compact and impervious to every natural fertilizing influence, as man, beast and wagon-wheels had passed over it in the cultivation and harvesting of crops, till the very life and power of production had been pressed out of it; and that it

* To facilitate the comprehension of the whole of the above statement, at one view, the reader is referred to the recapitulation contained in the following condensed table:

	Lime.	Soda.	Iron.	Chlorine.	Potash.	Magnesia	Silica.	Sul. Acid.	Ph. Acid.
Indian Corn.....	0.1	3.8	0.1	0.3	23.2	17.5	0.8	0.5	49.2
Wheat Straw.....	8.5	0.3	1.0	0.6	7.2	5.0	67.6	1.0	3.1

had now been loosened up to the depth of about nine inches, letting in freely warmth and the gases where before scarcely anything of the kind had found entrance, he will, perhaps, more easily conceive of the entire correctness of a statement which may, on the first blush, have appeared to him to savour of exaggeration. The truth is, and it is a concerning one to us all, there is scarcely any estimating the beneficial effects of deep ploughing and thorough pulverization of land in any case, but particularly of land so long neglected and abused as this had been. An instance much in point occurs in illustration of the general principle. It was about the year 1855 or '56, that a gentleman in Mississippi, whom at the time I chanced to be visiting, invited me out to see a field of wheat in which he was evidently taking much pride and pleasure. It was decidedly the best wheat to be seen anywhere in the country round him, and was particularly remarkable for the uniform evenness of its stand and growth; not thick and tall *here*, and *there* low and rare as the grapes after the vintage, as is apt to be the case on land badly tilled and unskilfully manured, but much alike all over—not differing perceptibly anywhere in the height or number and size of its stems and heads. As well as could be judged by the eye, the amount of grain on it would not have fallen short of twenty or twenty-five bushels to the acre—a good yield for that part of the country, where neither soil or climate are well adapted to this grain. After looking at it for some time, I put the question, “Pray, Capt. S., what did you do to this land to make it produce a crop so full and so beautifully uniform in its appearance?” His reply was, “I did nothing in the world to it, sir, but sub-soil it.”

“How deep?”

“Well, I ran a bull-tongue after a twisting shovel, and cross-ploughed in the same way. You can judge; probably about 8 or 10 inches.”

“What has been the ordinary produce of this land?”

“I have never known it to yield near as much as it now promises to do. Perhaps 10 or 15 bushels to the acre.”

But, to return to our immediate subject. The point we are concerned with is not to find out how land producing so little corn before should now have turned out so large a quantity of wheat-straw, but how it came to yield so much corn, peas, &c. after the straw had died upon it, and had been mingled with it as fertilizing matter. Without attempting to answer this inquiry scientifically, or to throw any other light upon it than has been thrown in the preceding paper, let us merely look at the result, and endeavor to draw from it such

practical lessons as it is fitted to convey, for the benefit of such as are willing to take a hint from the operations and teachings of nature. Such, account for it as we may, was the result. It has been given correctly as memory will admit, and such, there is every reason to believe, will be the result of similar means in similar cases, though not perhaps exactly the same in every particular.

We may take, for instance, a piece of poor upland, that, having ceased to pay the expense of cultivation, has been turned out a number of years in the way of old field. If this ground is well-broken up to the depth of eight or ten inches, so as to leave the surface-soil on the top, it will, at all events, return in oats something more than the seed sown. Let the farmer now—for most likely it would but poorly pay the additional expense of harvesting—turn his hogs upon it. They will improve very rapidly and to a degree that will well repay the labor and expense thus far bestowed. After they have trodden down the straw and consumed the grain, if they are taken off and all other animals carefully excluded, crab-grass, in a short time, will be certain to make its appearance, and if the season be at all favorable, in much greater abundance than any one would suppose who has not been an attentive observer of its growth on their lands. Now, this grass, in proportion to the quantity present, will act upon the soil in a way similar to that of the wheat-straw I have been speaking of. It will form a covering to the earth, protecting it from the exhausting rays of the sun, and attracting into it the fertilizing properties of the atmosphere. We will next suppose that the cultivator leaves all quiet till January or February: In the meantime, if he goes over this ground and here and there looks under the coating of dead grass, he will observe, particularly where it lies most thick and heavy, that the earth has assumed a different character and appearance. It looks, generally, darker; in some places, almost black; and, as a whole, has lost much of its former hardness and tenacity. Let it now be sown in oats again or spring wheat; taking care, while ploughing and cross-ploughing deeply as may be for that purpose, to keep the surface-soil and decaying grass as far as possible on the top. There need be no fear of smothering the young plants. They will easily make their way through a covering so slight as it will doubtless be for a year or two; and it will do twice the good that it would do if turned under, else what is the use of mulching a tree, or shrub, or plant of any kind? If he could now afford to give the whole a dressing of lime to the amount of twenty or even ten bushels to the acre, it would at once help the immediate crop, and tell plainly on succeeding ones

for years to come. But we will suppose him too poor for this—that he can avail himself of nothing aside from his manure heap, except that slow yet certain co-operation of nature which is open to us all. Can there be a doubt that he will have a much better crop the second year than he did the first; and a still better one the third year than the second; provided he has only moral courage and perseverance enough to pursue the system? Is not this plan in perfect conformity with the teachings of nature; and is there any telling the extent to which land may be improved by a steady and rigid pursuit of it? Who, that has not been so thoughtless as to burn it off, has not observed the effect of crab-grass managed in this way, upon his garden; where, however, it must of course have been ploughed or spaded under and mingled with the soil? In every such case, the ground has become like a bed of ashes, and, without any additional manuring, has returned an improved crop of vegetables. It is on this plan, but, as it seems to me, only on this plan, that we can account for the truth of a statement in the July number of the *Planter*, page 377, where, in reply to the inquiry, “How are we to get rid of the wild onion?” we find the following: “There is abundant testimony to the fact that poor land, cultivated continuously in oats from year to year, has been known to improve progressively until the crop became so abundant as to fall and lodge, so that it became quite difficult to harvest and save it.*

T. S. W. MOTT.

Garden Farm, Catawba county, N. C., January 20, 1868.

[TO BE CONTINUED.]

* It is not intimated that the land in any such case was manured. The obvious inference is that it was not. If, then, the result was not brought about by some such course as I am advocating, it is hard to see how the statement is to be sustained: as nothing can be more certain than that land, however fertile at the outset, must in time become wholly exhausted by constant cropping, if nothing is returned to it in place of what is taken away. But if it can be sustained by facts, surely it would be doing the public a service to bring them out. Let us have them. A single fact is worth fifty theories. Oats are a valuable grain. They are better for horses than corn; they are cultivated at much less labor; will fatten hogs quite as fast in proportion to weight of matter, and, what is of more importance by far, may be made, as I am trying to show, if properly managed, the means of adding very greatly to the renovation and improvement of the soil.

FRUGALITY may be termed the daughter of prudence, the sister of temperance, and the parent of liberty. He that is extravagant will quickly become poor, and poverty will enforce dependence and invite corruption.—*Johnson*.

Successive Crops of Oats—Their Effect to Destroy Wild Onion.

[In partial response to the call of our correspondent for facts corroborative of the statement made in the July number of "The Southern Planter," with regard to the effects of the continuous cultivation of oats, we annex the following extract from that journal for 1857, page 68; premising, that the extract does not meet fully the scope of the call, yet will, as far as it goes, subserve a good purpose by its re-production at this time. We cannot, at present, conveniently refer to a discussion in one of the section-meetings of the State Agricultural Society, in which facts were presented from which it appeared that poor lands had been fertilized from continuous cropping in oats. We reserve these facts for our April number.—ED. SO. PLANTER AND FARMER.]

It is a very common opinion that oats are one of the most exhausting of all grain crops. One of the best farmers of Western New York informed us that he never permitted this crop on any portion of his farm devoted to wheat or other grain, but only on land otherwise exclusively used for meadow and pasture. Another skilful farmer never raised the crop at all, preferring to *buy* all that he might need.

We have just conversed on this subject with T. A. SLOCUM, an enterprising and successful farmer of Perrinton, Monroe county, N. Y., who entertains quite a different opinion. He has cultivated the crop for many years past on a large scale, and regards it as one of the least exhausting. For the past six years, he has raised from forty to seventy acres. During this period, a part of his land has been cropped with it every year, and with a single exception, without any diminution in the amount. This annually-cropped ground has *averaged*, for these six years, sixty bushels per acre, including last year, when, by the unprecedented drought, it was reduced to fifty bushels per acre. The land, throughout this period, has *netted* him (above all expenses) twelve dollars per acre, as an annual average.

Our readers will doubtless feel interested to learn his mode of management. After the crop is harvested, he passes a spring-tooth horse-rake both ways across the field for securing all the gleanings; but, as he observed, this kind of rake having a sort of "baby-jumper motion" over the field, a considerable portion of the grain is shelled out from the gleanings, and partly harrowed in by the points of the rake. A thorough harrowing afterwards insures a good growth of oats, which is about a foot high before winter. Before the ground freezes, the whole is turned under with the plough in the most thorough manner—serving as a good green manuring.

Early the following spring, the surface is rendered mellow by

means of the harrow and two-horse cultivator, and the crop sown, seven pecks to the acre, by means of a grain-drill.

There is no doubt that the annual green manuring assists in keeping up the fertility of the soil; and there may be some kinds of soil including this that will long bear heavy cropping with oats. It may be questioned, however, whether it is good *permanent* policy to pursue this course instead of a more varied rotation. When we have a strong fertile soil, we prefer to *keep* it so, to its fullest capacity, rather than to draw too hard upon it, as even the strongest may ultimately fail. But cultivators of the oat crop may, however, derive some excellent suggestions from the practice detailed above.

The above article, which we clipped a few months since from the *Country Gentleman*, reminds us of some curious facts which we collected some time ago in regard to successive crops of oats. We shall give here such as we remember. It will be seen that they militate somewhat, not only against the general idea that oats are a very exhausting crop, but, what is of more consequence, against the general theory of the rotation of crops as necessary to repair the waste of different soils, and to increase fertility by fallow crops. Whether that theory is right, universally or generally, is not the point in discussion here. We simply narrate facts as we have collected them.

1. Several years ago, in conversation with the late Peter Merewether, of the county of Albemarle, whose accuracy as to matters falling within his own observation no one ever thought of questioning, and whose native intellect was of a high order, he mentioned that oats did not exhaust land, that he had known his uncle, the late Capt. Wm. Merewether, of Cloverfields—a farm adjoining his own—to cultivate a crop of oats seven years in succession; that so far from exhausting, he had heard his uncle frequently say that he thought the land improved; and that the crop of wheat, which immediately followed the oats, being of course the eighth successive crop, was better than the land would have produced at the commencement of the system.

2. Some time after that, we heard from a gentleman, with whom we were conversing on the subject of wild onion, that the practice of Mr. Richard Sampson, of Goochland, was to grow three crops of oats in succession on his fields which happened to be infested with this pest; and that the second and third crops were generally better than the first, the wheat upon the oat stubble being usually as good as he should have expected from the land under ordinary tillage. We subsequently met Mr. Sampson and conversed with him on this

subject, and he confirmed the statement of our informant, remarking, though, that the oat crop had not entirely eradicated the onion; but it had so crippled it as to make it a small grievance compared with what it had been before.

What was the treatment of the land, as it lay in oat-stubble in these cases, was not stated; nor did it then occur to us to enquire. But we were so struck with their contradiction to the ordinary opinion, that we sought some neighbor of Mr. Merewether, he having died shortly before, to get a particular statement of what he might have said to any of them on this subject.

3. The first of his neighbors we met with was Mr. Geo. L. Williams, then living in sight of Mr. Merewether, but now a resident of Fluvanna. He knew, he told us, nothing of what Mr. Merewether had said, but he could give us a fact coming within his own knowledge that might answer our purpose as well. This fact was that his father had cultivated the same field in oats eleven years in succession, grazing the stubble each year into the ground, with what stock he had, turned on always as soon as he could secure the oats. The land was poor—of the quality of that around Lindsey's Turnout in Albemarle, which it adjoined—so poor that no one would have thought of putting it in tobacco without a good manuring. But at the end of the eleven years' oat cropping, it was put in tobacco by his father, with none, or a very slight manuring, and made a good crop.

4. Mentioning these facts to N. F. Cabell, Esq., of Nelson, he mentioned a case that had been reported to him of a farmer in Buckingham county who had improved part of his land by a similar procedure continued through a course of several years; but he had heard, or presumed—which, is not recollected—that it was effected in that case by permitting the stubble of each year to grow up in weeds.

5. About the same time, we stated these facts to our friend, H. P. Poindexter, Esq., of Spotsylvania, who added one to the list, and has recently furnished us with a repetition of it in these words:

“In the year 1840, I commenced seeding my orchard in oats for the benefit of my hogs, turning them on the oats as soon as I discovered the straw yellowing under the head; which I continued until 1854, with a decided improvement in the land. I was prevented by circumstances from seeding the oats in 1854, and by the fall the oat was so thickly set in Virginia blue-grass it would have been useless to have fallowed it for oats. To cleanse the land of the grass,

I put the land in corn in 1854. The crop was greatly better than I had expected, some acres yielding at least fifty bushels to the acre this year. I shall cultivate it in corn again—after which, I shall continue my oats system; by-the-bye, I would advise you to recommend to every farmer to sow oats for the benefit of his hogs—say about one bushel for every five killing hogs.”

The additional time since the statement was originally made is of course included in the above.

6. These facts, and one to the same purport from another source which we remember to have received, but cannot now recollect the particulars of, and which is therefore omitted here, we mentioned about four years ago, at a meeting of the farmers of Virginia, convened in the Capitol to vitalize our present and then new-born Agricultural Society. They elicited some discussion, and one additional fact. Mr. Charles Carter Lee said that his uncle, Mr. Burwell, of Roanoke, had told him, in reply to the question, how he had managed so greatly to improve a poor field in front of his house? that he was almost afraid to tell him—but the truth was, he had done it by growing oats on the land year after year for—if our memory serves us—eight years.

We have given the names of all the parties above—a liberty we beg them to excuse—because testimony is more impressive when the witness is not veiled, and because we wish them to correct any error in our statements. If they will so correct us, they will do us and the public a favor. And if any gentleman can add his testimony to the above, an equal favor will have been conferred.

As the case now stands, we have given; including the extract from the Country Gentleman, seven cases in which oats cultivated under all circumstances of soil and after-treatment, have improved, or at all events failed to impoverish land. The facts possess a scientific value probably above their practical importance: But still one or two valuable practical deductions may be made.

First. It proves that one may have the same lot for hogs for many years. This will enable him to commence the process of fattening—unless he shall previously, and more judiciously, have begun it on clover—at an earlier period than is common, and, by means of green corn fed in the roasting ear, and secured, by successive plantings, in that condition until frost, to continue it uninterruptedly until a short time before killing, which should always, yes always, take place as early in November as the weather will allow.

Second. It will enable a great many to subdue, if not destroy,

the wild onion, which frequently causes a loss of 5 to 10 per cent. in the price of wheat, without injuring the land.

Third. It presents a ready means of getting a good fallow on lands apt to bake in summer; as it ensures that the land will not be injured by the growth of oats, whilst it can certainly be fallowed with half the labor. Whilst for hogs, which will harvest it themselves, or for marketing near a city, where the sheaf oats may bear a high price, it is a valuable crop, (provided, in the latter case, the land will bring straw enough to give weight,) yet, as a general rule, whether for market as clean oats, or for home consumption, we think it, in our climate, just the meanest crop that is made. It is true, there is no better feed for a horse than a plenty of oats; but fed to them in such quantities as they require to do work on, one can make any other forage crop to greater profit. As proof of this, we may mention that Mr. Ro. Edmond, who has bought more feed for horses than any other man in Virginia, and who is an adept in his business of James River canal route contractor, has told us that he does not estimate sheaf oats, pound for pound, as equal to hay of any sort.

One thing more, and we have done. Let those who may incline to try the experiment of successive oat crops, whether for hogs or for other purposes, beware of selecting sassafras land for the purpose. Repeated ploughings will surely extend and increase the growth of sassafras bushes. We know that by experiment in this very matter.

Leaves and Shadows for the Improvement of Land.

Mr. Editor,—The perusal of Mr. Mott's interesting article in the January number of the Planter and Farmer, on the improvement of exhausted land by means of rest and shade, leads me to examine somewhat critically the renovating elements and forces which rejuvenate and fertilize impoverished fields. Mr. M. says: "We see it [improvement] wherever a piece of board, a log of wood, or even a large flat stone has been lying on the ground for a few months; wherever chips, straw of any kind, saw-dust, spent tan-bark, or any substance, however poverty-stricken in itself, as a pile of rocks, for instance, has been suffered to accumulate; above all, we see it in the forest, which literally lives, feeds and fattens upon its own *shadow*, and the small, small certainly in point of bulk and weight, amount of withered leaves which it yearly gives back to the earth in return for what it has taken away."

If shade and shadow are so fertilizing in themselves, as your Garden-Farm correspondent believes, the facts bearing on the subject are of transcendent importance, and should be universally understood. Now, shade on soils, even when denuded of mould by washing rains or otherwise, is valuable to facilitate the play of chemical affinities and the development of plant food, beyond what would take place in the absence of shade. Sunshine dissipates and lessens humidity in the surface of the ground, while shade protects it alike in the loose soil and in the air that pervades it. With due moisture, many mosses grow on naked granite, limestone and other rocks; but without moisture, no plant whatever can grow anywhere. *Growth*, whether of plants, animals, or the food of either in a mineral form, implies freedom of motion in elementary atoms. While floating in water, whether in moist, shaded earth, in the cells and circulating tubes of plants and animals, chemical and vital forces decompose and newly arrange these perfect atoms to form all the possible products of either tillage or husbandry. At night, the earth's shadow cools plants and covers them with dew, which favors that new combination of elements called active vegetation. But dew charged with carbonic acid (as it always is), attacks insoluble silicates of potash, lime, soda and magnesia, and from apparently sterile, hopeless sand, evolves alkaline substances, phosphates, &c., indispensable to the organization of sedge and pine on the poorest land.

What denuded piece of ground could be more unpromising for a crop than a soil formed of pounded glass? Yet, at Saratoga Springs one may see glass tumblers used for drawing water highly charged with carbonic acid, deeply corroded because this very common acid has taken away from the silica in the glass its alkaline bases. All common organic bodies yield carbonic acid on decay or combustion; all rain-water and nearly all spring-water contains it. It is the very tooth of time that eats down granite monuments, hills and mountains, and makes soil of their constituents. The Mammoth Cave in Kentucky, and all similar caves, are proofs of the power of water, holding a little carbonic acid in solution, to dissolve limestone rock. If, from any cause, this acid is set free, pure water precipitates the carbonate of lime as an insoluble body.

From the above brief statement of facts, the reader will see how forest leaves, straw, chips and saw-dust benefit land, not only by shading it and keeping it moist, but by developing an acid of inestimable value as a chemical agent in decomposing some of the most refractory minerals, to liberate their agricultural salts and pro-

duce new ones; for sulphur, phosphorus and chlorine, doubtless come, primarily, from crystalline rocks, not less than silica, potash, iron, soda and magnesia.

In process of time, shade, water, carbonic acid, tillage and the removal of crops, take out of the soil so much of the elements of fruitfulness that it refuses to produce remunerating returns for agricultural labor, unless irrigated or manured in some form. The people of China, Japan, and other oriental nations, have tested this matter for thousands of years; and I cannot but remark that it is defective logic to argue or assume that one may remove phosphorus in grass, grain, and other crops, indefinitely from a field, and make full restitution in "shadows" by the square yard or acre. No, the farmer must see and understand how the substances taken away are returned to the soil again.

The same abundant solvents, water and carbonic acid, which form such extensive cavities in limestone rocks, bring the phosphates of this mineral up to the surface of the ground from great depths; so that a living spring in the great desert of Sahara produces a perfect oasis round it—a place where children and young camels get rich milk and form their flesh and bones from elements brought to them by a living fountain. Surely the same water and other plant-food that will make a desert fruitful, can hardly fail to fertilize any impoverished soil. Such water gives one's farm rich and reliable manure brought from a distance, and thereby adds to one's active capital the raw material of wheat, corn, tobacco and cotton.

Rich river bottoms are plain, unquestioned proof of the natural power and function of moving water coming from springs in mountains, hills, valleys and plains, to support, in a remarkable degree, both vegetable and animal life. Hence, I have urged upon American farmers, during the last forty years, the wisdom of irrigating their farms, so far as practicable, by the use of Persian wheels, force pumps, hydraulic rams, and other contrivances for the elevation and distribution of water. In this way, the good husbandman secures all the possible benefits of shade and decaying vegetation by greatly augmenting the growth of recuperating plants on his fields, without consuming any capital whatever that was before in them.

Brother farmers, our soil is our bank of deposit and discount; and to grow rich with funds in bank, we must learn to deposit more to our credit and ask for large discounts less frequently. Soils grow poor and banks break by giving to bad customers wheat, or something as good, and receiving a "shadow" in payment.

Gap Creek, Knox Co., Tenn.

D. LEE.

On Sheltering Cattle in Winter—The Economy of Selecting Young Hogs for Pork—The Curing and Housing of Oats, &c.

Mr. Editor,—I was much interested in the communication of your intelligent correspondent "Marlow," in the January *Planter and Farmer*, detailing the "Mistakes of a Young Farmer." Such articles are vastly more valuable than those vain-glorious communications, giving a high-wrought account of some accidental success, which sometimes encumber the pages of agricultural journals. It requires a considerable amount of moral intrepidity to make a fair and honest exhibit of failures and mistakes in any undertaking; but especially is this the case in agriculture. It is so much more agreeable and facile to describe those operations of the farm which result in large crops, high profits, sleek horses and fat stock, than those whose only fruits are disappointed hopes, unrealized expectations and illustrations of the truth, that

"The best laid schemes o' mice and men
Gang aft a-gley,
An' lea'e us naught but grief an' pain,
For promised joy,"

that I am not surprised at farmers shrinking from a detail of the latter. But I hope "Marlow" has set an example which will lead to the erection of many a pharos, whose warning light will point out danger, and save many a farmer, both young and old, from failure and disappointment.

The object of this communication is to make a few suggestions connected with the subjects discussed by "Marlow."

Sheltering cattle from "falling weather," during winter, is doubtless advantageous and conducive to the comfort of the animals, but persons who have never tried it, are apt to fall into "mistakes" as to the amount of food saved thereby. "Shelter" is but a poor substitute for provender; although cattle comfortably housed can doubtless be carried through the winter with rather less food than those exposed to the vicissitudes of the weather. But my experience is not sufficient to determine whether the saving of food and other advantages, accompanying housing cattle, will justify the expense necessary to provide stabling. The amount of food upon which the finest animals in the herd die, when unsheltered, would not have kept them in "good plight," however carefully protected from the inclemencies of the winter. The advantages of stabling cattle do not consist alone in the saving of food, and protection from the

weather. It enables you to secure to each animal his due share of provender, as the strong cattle can be effectually prevented from domineering over their weaker brethren, and appropriating to themselves the "lion's share" of the food. And, as is always the case, some members of the herd are more delicate, and, consequently, timid and dainty feeders, you can give to them "Benjamin's Portion," as well as allow them ample time for taking their meals. These advantages are of more consequence than the mere saving of food.

Sheltering cattle, however, is not essential to wintering them well. In the Valley and West Virginia, where a large number of cattle are annually reared, provision is rarely made for protecting them from "falling weather;" cattle of all ages being wintered in the fields—the only protection they get is the leeward side of a hill, fence or other break-wind. A little grain given to cattle, especially those of a tender age, in the latter part of the winter or early spring, is very beneficial in enabling them to endure the hardships of that trying season. Its good effects will be made abundantly manifest the next summer. Calves, the first winter, do well on corn shelled, but not ground, and fed to them in a trough. Giving them from one to two moderately-sized ears each, a day.

The mistake we all commit, in rearing hogs, is, undertaking to keep, during one winter, those we design slaughtering the next. I am satisfied the only hogs a farmer should winter are his brood sows. Spring pigs, coming from March to May, will make cheaper pork, than hogs which have cost the farmer a winter's care, trouble and corn. I had, on the 17th of last May, two litters of pigs of five each. The sows had, until after harvest, the run of a good pasture-field, at the same time sharing, with a dozen other hogs, the kitchen slop, and spare milk from a dairy of seven cows. After the wheat was hauled to the barn, they were turned into the stubble fields, together with all the other hogs on the plantation. After the stubble was exhausted, early in September, these pigs, now reduced to nine, (one having died suddenly, without apparent cause,) received, once a day, the skimmed and buttermilk from the dairy, it being about as much as they would drink. But they had nothing else, except access to a pasture-field. This treatment continued until the first of December, from which time, until the 8th day of January, when they were slaughtered, they were fed liberally on corn in the ear. The aggregate weight of the nine was 1,170 pounds, an average of 130 pounds. This statement is made, not because it is deemed an extraordinary result, but because it is one

attainable by all farmers, and every year. I am satisfied that the pork from these May pigs cost me far less than that made from hogs that had been fed corn all the previous winter.

Oats. This crop, unless thoroughly cured before being housed or stacked, will inevitably be injured. And if it has many weeds mixed with it, they must be allowed time to cure as well as the oats. No specific directions can be given as to the time necessary for oats properly to cure, it depending on the ripeness of the crop and the character of the weather. I think time and labor are both saved by not binding the oats at all. When sufficiently cured to be gathered, two swaths are raked into bunches, and one thrown upon the other. This is done so that the wagon can be driven between two rows of these raked oats. Then a hand at either side of the wagon, with one on it to "build," will soon put on a load. The oats are pitched on the wagon with an ordinary four-pronged iron fork, or a wooden one, whose prongs are rather longer and more curved will do better. But, until the load gets too high for that purpose, the best way is to throw them on the wagon with the hand. It can be unloaded as speedily as bound oats; for a good hand will pitch off at a "fork-ful" more than the equivalent of a sheaf. Whether unbound oats can be stacked securely, I am unable to say, as I always put mine in the barn.

Fencing is much too extensive and crooked a subject for the close of this paper. I may, at some other time, give you my views on this matter, so costly to the farmer. T.

Experiment with Baugh's Super-Phosphate and Old Dominion Fertilizer Applied to Corn.

Mr. Editor,—On the 1st of January, 1867, I saw, or thought I saw, the utter impossibility of working our lands as we used to do in those good old times, now gone by, with our then demoralized labor. I found, from my own sad experience of the year before, that I could not work poor land with freedmen without a heavy loss, and resolved to hire less and cultivate a much smaller surface, to manure much heavier and try to make all I could from a small surface by thorough preparation, heavy manuring, and good, timely cultivation. To accomplish this, I first rented out the larger portion of my field for corn to a neighbor, who was esteemed a good cultivator, and worked it with two sons and three nephews, all good hands, reserving only twenty-five acres for myself. This land I have been work-

ing since 1831, and had made good crops, yet, I determined to make 650 yards of blind ditches on the flat land, which was about half of the twenty-five acres. I ploughed and harrowed it until I got it in first-rate order for a tobacco crop; and while my tenant was planting his corn, three weeks before I commenced, I was busily employed in getting my land in first-rate order and getting out my manures on five acres of the twenty-five. I then purchased one ton of Baugh's super-phosphate of lime, of Baltimore, at \$62½, in Charlottesville, of Payne & Brother, and a ton of the Old Dominion, of Professor Gilham, of the Southern Fertilizing Company, of Richmond, at a cost of \$74, in Scottsville, and one ton of plaster, which I divided and mixed with the two tons of purchased manures. I then ordered the twenty acres to be laid off in corn-rows four feet apart, with a one-horse plough; then in those furrows I had a two-horse coulter run as deep as it could be done; then, with Routt's corn-planter, which had a guano-fixture attached, which is an excellent labor-saving implement, as it opens the furrow, drops the corn, sows the guano, covers and rolls all at one operation (I would recommend it to every farmer, especially in such times as these), I commenced with the Old Dominion, planting one-half of my twenty acres, finishing in the middle of a row, where, with a crow-bar, I set in a good stake, which remained there until the corn was gathered. Then I began with Baugh's. I have never had a corn-crop to come up and grow off better and yield as well. It was the very best crop of my life. If I had had two more rains, at the right time, I and all my neighbors thought it would have made twenty barrels to the acre. I measured four acres, which made, bad as was the season, over thirteen barrels per acre. The land was in good order, and well-worked twice with cultivators—intended to give it three workings, but it grew so fast, I could give it but two. At the second and last working, I sowed by hand the balance of my bought manures in each corn-row, just before the cultivators, in order to help make the ear of corn, and I tell you it did it. Every passer-by (it was on the main county road) wondered at its magnificent growth, and asked with what manures I had fed it.

Now, this was only two hundred pounds per acre, at a cost of about \$5 per acre. My tenants made, on fifty acres, just one hundred barrels of corn and nubbins. I made, on my twenty-five acres, I think about two hundred and fifty barrels. My tenant's land was as good as my own without my manures.

Now, I have told you of my application of manures, and the effects, but I cannot tell you which was the best of the two kinds.

Neither I, nor any one of my numerous friends, who, at various times, inspected the crop, could ever see the slightest advantage of one over the other—both were so good, I shall try both again this spring on my corn, oats, &c. I am perfectly satisfied we must manure more and hire less labor—the manure pays better than the worthless labor now generally afloat in these parts. From misjudgment or carelessness, most of the rows were only three feet apart, and the corn, intended to be dropped eighteen inches apart, was planted much closer; and when we went to thinning, it looked so good that Cuffee said he couldn't thin it right, and often let two stalks remain where I ordered but one to be left. As the season was, it was too thick, but if I could have had the two rains more, I do believe the crop would have made about twenty barrels per acre. I think, this spring, many of my neighbors will join me in the like efforts, fondly hoping for the same cheering results. I have written to our friend, General Imboden, to send me up two good honest, sober, industrious immigrants—what do you think of them? If no better labor can be had than the puffed-up freedmen, we must close or be closed up.

I take the Baltimore *American Farmer*. Send me up your *Planter and Farmer* and your account to Charlottesville Post-Office, and I will send your dues with best wishes for your and our poor country's highest success.

Yours truly,

GEO. C. GILMER.

Charlottesville, Albemarle Co., Va., Feb. 12, 1868.

P. S.—When my tenants planted their crop, they and I fully expected them to make two hundred and fifty barrels. They worked it poorly and too wet.

G. C. G.

“Never speak to deceive, nor listen to betray.”

“Let your anger set with the sun, but not rise with it.”

“Great receipts render us liable to great accounts.”

“Sweet are the slumbers of the virtuous.”

“Do nothing you would wish to conceal.”

“Retire sometimes for sober consideration.”

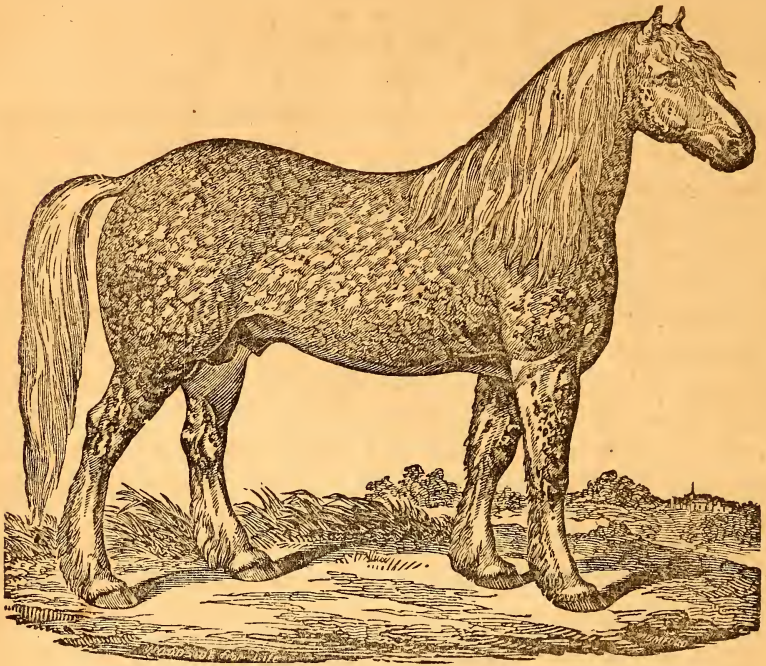
“Knavery may serve a turn, but honesty is the best in the end.”

“Confidence is the companion of success.”

“No man is master of himself that is a slave to his passions.”

“Long hopes wear out joys, as long maladies wear out grief.”

“Never carry two heads under one hood.”



The Percheron Norman Horse.

The above cut represents that type of the Percheron Norman Horse which has been most nearly established by careful and systematic breeding; we say most nearly, because in France, it is well known there is a great disregard of system in the breeding of animals, and consequently there are numerous types of the Norman distinguishable by variety of color, form, height, disposition, &c., yet none of them—unless this be an exception, and we believe it is—comes up to the standard of purity in their particular strain of blood, as described in the following extract from Herbert, in his book, while speaking of the Norman breed of horses:

“This breed of horses originated in, and now exists in their most perfect form and condition, in *Le Perche*, a district of that portion of France, which was formerly known as Normandy, and are clearly a pure breed *per se*. We do not mean thorough-bred, but a breed capable of producing and reproducing themselves *ad infinitum* unaltered, and without deterioration of qualities, by breeding like sires to like dams, without infusion of any other blood, just as is done by Durham, Ayershire, or Alderney cattle; by setters, pointers, greyhounds, and in a word, by any and all animals of distinct and perfect varieties of the same species.

“The points of this peculiar breed are that they are much taller than ordinary horses; their standard is probably from fourteen and a half to sixteen hands high. Secondly, they are very short in the saddle-place, and comparatively long below; they are well-ribbed up and round-barrelled, instead of having the flat sides and sway backs which are the defective points in most American horses; their heads are short, with the genuine Arabian breadth of brow and hollow of the profile between the eyes and nostrils; their necks are well arched, and sufficiently long to correspond with the general stoutness of their frames; their legs are particularly short from the knees and hocks, downward, and although heavily haired, they are not shaggy, while they have unyielding, iron-like sinews, and feet apparently unconscious of disease.”

A writer in *The British Quarterly Journal of Agriculture*, speaking of this class of horses, says: “The horses of Normandy, are a capital race for hard work and scanty fare. I have never seen such horses at the collar, under the diligence, the post-carriage, the cumbrous and heavy voitre or cabriolet for one or two horses, or the farm-cart. They are enduring and energetic beyond description. With their necks cut to the bone, they flinch not; they put forth all their efforts at the voice of the brutal driver, or at the dreaded sound of his never-ceasing whip; they keep their condition when other horses would die of neglect and hard treatment.”

Mr. Harris, of Morristown, New Jersey, in *Youatt on the Horse*, says: “These horses first came under my observation on a journey through France in the year 1831. I was struck with the immense power displayed by them in drawing the heavy diligences of that country, at a pace which altogether not as rapid as the stage-coach traveling of England, yet such a pace, say from five to nine miles per hour, the lowest rate of which I do not hesitate to say, would in a short time, kill the English horse if placed before the same load.”

Our readers will readily perceive that a breed possessing such characteristics as above described, is deserving of their attention as being better adapted to the wants of the country for “all work,” than most of the low-bred animals so common amongst us. About two years since, Mr. Slaughter W. Ficklen, of Albemarle, imported selected individuals, both male and female, of the type above represented, and is doing what he can to promote the improvement of farm horses in his section of the State.

Are Farmers Quacks ?

NO. III.

One of the signs of quackery is to persist in the same treatment of diseases, despite of uniformly disastrous results. Dr. Sangrado freely admitted to Gil Blas that the free use of warm water and the lancet uniformly hastened the death of the patient, still he persevered in it. Many farmers do precisely the same thing. They admit a failure, but they do not change their practice. Their lands get worse and worse. Dr. Sangrado was sustained by pride of opinion, and by the profits of a lucrative practice. The farmer may be as *opinionated* in his practice, though it is certain that he does not find it so profitable. The old routine of skimming, and skinning large surfaces, to get small crops with a ruinous labor, is more diligently pursued each succeeding year with the hope of finally retrieving the losses of the past. Why, you had just as well try to convert the old-fashioned "Calomel and Jalap" doctors to Homœopathy, as try to convert one of these land-scratchers to any other style of cultivation. You may tell him his mistake, and he may even own it, but he continues the same practice nevertheless.

"The man grows worse and worse, indeed!
Go for the doctor—go in speed!
The doctor comes, like post or mail,
To double the dose of calomel."

Now the term *quack* is of wide application, and comprehends many shades of meaning. The advocates of any one system freely apply the term to the advocates of any other. The Allopathist calls the Homœopathist a quack, while they both bestow the same epithet upon the steam doctor. Now it occurs to me that there is a spice of quackery in all these systems, and the most objectionable features of a system generally find the strongest advocates; and, perhaps, a man of an eclectic turn of mind would find some good in every system. The Homœopathic system is in high repute with some farmers. There are two distinguishing features of this system. The fundamental principle is, "*Similia similibus curantur*," which may be roughly translated "Like cures like; or, in other words, that remedy which would produce a given disease in a healthy subject will cure it in the patient. "The hair of the dog is good for the bite." The practice of many farmers runs very close to this system, and may be thus rendered: "That system of

culture which will impoverish good land, will restore impoverished lands." I do not know that any one has succeeded in establishing this theory of farming by experiment, but it is followed none the less earnestly for all that. Another feature of this practice is, to give infinitesimal doses which act solely on the electric and magnetic forces of the body, and restore the disturbed equilibrium. Some farmers distribute a very small amount of manure, on the same principle, thinking to titillate and arouse the dormant forces of the soil. Has any one succeeded in this theory? I gave it a fair trial on my first crop of *lot tobacco*. I think I will never try it again. I think I will try a genuine Allopathic dose the next time; the larger the better. The Allopathist says: "Contraria contrariis curantur;" "contraries cure contraries." I believe in this. Supply to the soil what it lacks. But let it be done intelligently, and not like a brother chip who once spent a great deal of labor in hauling poor clay from one field to spread upon poor sand in another, back loading with sand to mix in the clay field; neither got any benefit.

Some believe in steam doctors who lay great stress on sweating their patients, and feeding them liberally with wholesome food. This system will do with a slight modification. Let the farmer do the sweating, and he may feed the land as high as he pleases; the higher the better. I can easily endorse the steam system, if the doctor will do the sweating, and let me do the eating.

Meaning no offence to quack farmers or quack doctors, so I escape their quackeries, I subscribe myself in conclusion.

J. B. S.

P. S.—I just call to mind a case of Homœopathic practice. A friend of mine rolled his wheat lightly in guano before seeding last fall, and gravely argued that it was a great deal better so than to put two or three hundred pounds on the acre. We shall see, or as the Frenchman says, "Nous verrons."

LABOR CONQUERS EVERYTHING—

Let it be "known that, he who would adorn
His envied temples with the [champion's] crown
Must either win, through effort of his own,
The prize, or be content to see it worn
By more deserving brows."

"Let us go to work—work is the slogan of life!"

Report of Commissioner of Agriculture.

No. 2.

One hundred pages of the Report are devoted to stock. There is a brief notice of the "Cream-Pot" breed of Massachusetts—a cross of the Durham and the Yankee—celebrated for its milking qualities—its cream so rich that Mr. Coleman, Commissioner of Agriculture in Massachusetts, "saw a portion of it converted into butter, with a spoon, in one minute." Colonel Jaques, a distinguished breeder near Boston, enjoys the merit of introducing this breed, having obtained it, he says, "by the cross of a Durham short-horn bull on a selected native cow, with certain extraordinary points and properties—anxious to retain as much of the form of the Durham as to insure capacious udders, and with the valuable property of affording rich milk." "Their cream produces more than 80 per cent. of pure butter; and it is not unfrequent to form the cream into butter in one minute. It has been done in forty seconds."

Mr. Allen, of Black Rock, also a distinguished breeder, contributes a long article on the "Improvement of Native Cattle." He traces briefly the importation of cattle into America. "In the year 1793, as near as can be ascertained, a Mr. Miller, of Virginia, and a Mr. Gough, of Baltimore, imported some cattle from England, which, from all the accounts we have had of them, were pure short-horns. Into what particular part of the country they went we are not informed, but our inference is that some of the blood was soon taken to the South branch of the Potomac river, in Virginia, a fine grazing region, which, for many of the early years of the present century, was noted for its superior cattle. As early as 1797, a Mr. Patton, from Virginia, took some of these short-horns into the blue-grass region of Kentucky, where they were afterwards known as the 'Patton Stock.' They were there bred, and became decided favorites with the breeders and graziers of that young State."

Some of your readers—likely, Col. Ware, of Clarke, can impart information about this stock. The South branch stock owes its excellence, probably, to these importations.

Mr. Allen commends "the great advantage of the short-horn blood in their early preparation for the shambles. The common or native cattle require full five years to obtain sufficient growth to fat with any profit. If fed with grain at three years old, the food goes to the growth of bone and sinew and common muscle, and not to good flesh and tallow. They have a deal of offal to carry in the way of head, horn, dewlap, and general coarseness, which the better

bred animal has not. Thus the native beast consumes his extra food to no profit, while the short-horn converts his food into profitable flesh and tallow. In this way, it is seen that a great loss of time is suffered with the native stock—one or two years, at least, and sometimes more—besides the expense of keep during that time, interest on the capital invested and risk of death or disease; while the short-horn turns all his food to good account, and is marketable at an age never exceeding four years, and always profitable to his breeder, grazier or feeder.”

Mr. A. believes, as we do, in thorough-breds, and rejects all *smoky or black heads*. So do we of the South! Says he, truly, “As one goes into the great cattle-markets, and sees the amount of inferior cattle that comes in under the name of ‘beef cattle,’ he wonders where it all comes from, or what could induce men to send such stock to market. There can be no possible profit in them from birth to slaughter—a loss, in fact, to every one who touches them, to rear, graze or fatten, if, by any possibility, they can be made fat. Old cows and broken-down working-oxen, on which corn would be well-nigh wasted if fed in any great quantity, must go to market and sell for the most they will bring; but why healthy young cattle, not over four or five years old, full half the weight of which are heads, horns and bones, are reared, grazed and fed, and then sold for half or two-thirds the price of really good cattle, such as almost any farmer may breed with little more expense and trouble (not half so much of either as the difference in price), surpasses comprehension. A man who occupies land not worth more than ten dollars an acre, and can let his cattle range over land that he does not own, may have an apology for keeping and rearing mean stock; but when men occupying farms worth thirty to one hundred dollars an acre, and frequently more, with abundant means and opportunity to deal in good stock, can content themselves with breeding and rearing inferior animals, I fail to discover any apology beyond sheer ignorance or stupidity.”

These are words of wisdom and experience, well worthy the attention of our farmers.

The following story of Mr. Allen is too good to be omitted. It is of the rich Scioto valley of Ohio! Not of our *ignorant, besotted South!* “Some time since a friend of mine, who owned three hundred acres on the Scioto bottoms, mostly in corn, went out on his annual cattle-buying tour. He found a hundred head or more in the hands of an old farmer, who owned a thousand or fifteen hundred acres of rich land, mostly in pasture and enclosed by high rail

fences. Back from the road was a dilapidated log-house, with but two rooms in it, a little garden-patch of perhaps a quarter of an acre, and fifty to one hundred acres in corn or other crops; but not another building or shanty, of any kind, on the premises, except an old log-stable, for the accommodation of a few horses, with their gearing. Everything else was 'out of doors.' The swine grunted and rooted about the grounds, and the turkeys and chickens roosted in the trees. There lived the man and his family, a large one, composed of his 'old woman' and a number of full grown boys and girls, as unkempt, ragged, and ignorant as himself. He had bonds and mortgages, and cash in the bank. My friend purchased the cattle, and went into the house to pay for them; needing a light, the old man went to a shelf in the room, took down a tea-saucer filled with pig's grease, a button, tied up in a rag, lying in the middle of it, the furzy end of the rag sticking up by way of a wick, which he lighted at the fire. With the aid of this glimmer, they sat down to the table, figured up the sale, and the money was duly counted out. After being carefully re-counted by the host—for he knew as well as anybody what bank notes were worth—he carefully 'made his mark' at the foot of a receipt which my friend had written. That done, the latter got up, put on his hat, and, as he was leaving the room, the old man blew out his light before his visitor had reached the door. Such men do not raise short-horns, although they know good cattle when they see them, nor will they read this article."

Next to the advertisement of the stallion, "French Napoleon," comes a Colonel's "experience in the army" of the horse. He treats of its origin and usefulness; the horse in war; the horses in the United States; action of European governments; horse-breeding; judging horses; selecting horses for the army from government corrals; on the relative powers of endurance for the different kinds of service of the several classes of animals during the war; faults and vices; treatment; food; and diseases. He copies a description of the uses of a dead horse in European cities. "When the horse falls he is bled, and his blood is preserved for the use of the dyer; the mane and tail are next cut off for the manufacturer of sieves, hair-cloths, and bow-strings for the violin; the shoes are taken off for the nailer; the hoofs are cut off for combs of various kinds and other horn-work, and a portion of the feet goes to the glue-maker; the skin is stripped off for the tanner, who converts it into excellent leather for boots, harness, &c., and the collar-maker finds it, in its rough state, the best material for cart-harness. The flesh is then

cut up for the carnivorous beasts in menageries, or for dogs; and, though, without knowing that there are (hypophagi) a club of horse-eaters, who regularly advertise their club-days, some of our fellow-creatures are regaled in the cheap eating-houses of great cities with delicate bits of carcass, in the form of *patés*, pretended beef-steaks or soup. When the flesh and fat have been removed, the stomach and intestines are laid aside for machine-straps and strings for musical instruments, and are often sold for the latter purpose as the best Naples cords; the ribs are turned into buttons and children's toys; the larger round bones serve for tweezers, whistles, ferrules, knife-handles, caps and balls, dominoes, &c., and the large flat bones are of use to the toy-men for many things; even the teeth are useful, when polished, for the dentist, and for many purposes for which ivory is usually required. The bones of the head are either consumed in heating-furnaces, or crushed into dust for manure. The remainder of the carcass is burnt, and by this process it produces ivory-black, soot-black, and valuable manure; and from the fat is extracted a coarse oil, which is used by mechanics."

Next follows an interesting article on "Improved Kentucky Sheep," shown to be of superior quality and well-adapted to the South and West. They are vastly better for us than the less useful and more costly merino, which Northern breeders are discarding and sending Southward. This is shown in the next article concerning "Mutton Sheep," by Mr. Dodge, of the Department. He says, "They are delicate, and die in great numbers; while, on the other hand, the long-wools are superlatively healthy."

The Esquimaux-looking "Infantado and Paulas Sheep" are depicted and described.

"The Ram Ontario" of this breed is advertised; as also the "Maple Shade Cotswolds," on a previous page.

The article on "Training Animals for Work" is suggestive.

"English and American Dairying" is interesting and highly instructive to dairymen. There is strong temptation to copy a picture of English farming life, and the description of Cheddar, "Single Gloster," and Cheswic cheeses; but you have not space for copious extracts. The author, Mr. Willard, of Herkimer county, N. Y., an experienced cheese-maker, visited England to examine this subject; and he thinks that he "may safely say that American cheese to-day, as a whole, has more quality and is better manufactured than the bulk of English cheese."

"I have," says he, "given them the credit of producing a limited quantity of cheese of the finest type that has ever been reached

by any manufacture, but the quantity is comparatively small, and when the whole bulk is considered, there is nothing like the richness and uniformity of that from our factories. This is not only my own opinion, but that of many of the best judges of cheese in Great Britain."

"The Hog and its Products" comes, of course, from Cincinnati. Five hundred thousand pounds glycerine, valued at \$200,000, are manufactured from lard. Happily is it so abundant, for "it is prescribed by the faculty in place of cod-liver oil, being equally serviceable and more palatable for invalids. It proves a valuable aid in surgical practice and in the treatment of wounds, and is applicable to the relief of burns, rheumatism, sore throat, and ear diseases. It is also the best remedy for the chapping of the lips or the hands, and a specific for sore teats in cows. Its pharmaceutical use as a solvent is superior, for general purposes, to either alcohol or water. It is an antiseptic, and in its non-liability to ferment, its fattening properties, and for its pleasant taste, is of immense value to the druggist, and consequently to the physician and his patient."

The extraordinary fact is stated, that "within the knowledge of hundreds now in Cincinnati, that in the early ages of pork-packing, say in 1828, there was so little demand for any portion of the hog, other than hams, shoulders, sides and lard, that the heads, spare-ribs, neck-pieces, back-bones, &c., were regularly thrown into the Ohio river to get rid of them."

"In the Western States, according to the census of 1860, there are 134 hogs to every one hundred of population; in the Southern States, the proportion is 163 to every one hundred. Notwithstanding this disparity, the South not only consumes her increase of hogs, but is the largest purchaser which the West finds, at home or abroad, for her large surplus." The writer is puzzled to solve this problem. It proves that planters fed their slaves plentifully; and also that fanaticism is a stronger passion than avarice in these latter days. Else, the West would seek to restore prosperity to the South and to revive a trade which would bless both.

There are thirty pages on "Pisciculture," with half dozen illustrations. This artificial breeding of fish is a new art, and is being tried in the Northern States.

"Marine Plants—their uses, with a brief account of the curing of Irish Moss," is the next article. About 6,000 barrels of it is the annual crop in the United States, commenced in 1849 in Scituate, Mass. It is valuable as a substitute for glue, isinglass, as size

for painters, and for medicinal and culinary purposes. It is one of Ocean's spring crops.

It is cheering to have the gentle help of woman in useful pursuits. Some of the sex have been known to be excellent farmers. The dairy, the fruits, vegetables and flowers, are peculiarly theirs. It is pleasing, too, to see their contributions to agricultural reports. In the present one, ten pages are upon "Female Life in the Open Air," by a New Hampshire lady. She gives good advice and shows good examples from life across the ocean about abundant exercise in the open air. But her style of writing is better adapted to the "monthlies" than to a Department report. To do her full justice, a paragraph must be cited. "The brooklet, gliding noiselessly over its rocky bed, bursting into aqueous gems, where a tiny obstruction gives it excuse for flashing into a water-fall—or settling into shady pools to shelter the purple and gold-flecked trout—giving freshness to moss and lichens upon its backs, and brightness to flowers that nod in homage to its gentle ministrations; the mountain that rears its crest to heaven, and makes of its rugged breast a nursery for opal-hued clouds and lovely blendings of shapes," &c., &c., and more of the same sort.

The other lady writes a more practical article on the "Education of Farmers' Daughters." She makes good suggestions for the physical as well as mental development of girls. She draws a picture of domestic want—long felt in the North—of which we knew nothing until Yankee philanthropy brought it to our doors. "A foolish prejudice has sprung up in the minds of American girls dependent on their labor for support, against household service, which they refuse on my terms, and accept routine labor in some species of manufacture, requiring long daily service, constrained or cramped positions, insufficient ventilation, and an expense for board that leaves a remainder too small to pay for the losses incurred, in comparison with wholesome, comfortable, well-paid house-work. Thousands of girls are yearly killing themselves in large cities by overwork and insufficient pay, especially in the various departments of sewing. In manufacturing towns they are better paid, though often they are injuring health that would have been improved by household labor." "The evil is of such magnitude as to attract the attention and command the anxious consideration of the most practical minds with a view to a possible remedy." "In the Eastern States, this difficulty has been at its maximum of late, and nearly the same state of facts exists at the West." Our Yankee brethren, then, have not been able to attract to them the trained domestic

labor of the South which they coveted so much during the war; but they have drawn us down to their own level.

February 17, 1868.

E. T. T.

Warbles.

Mr. Editor,—Having engaged lately in the business of raising, buying and selling cattle, I have met with something that completely over-masters me, and which has made considerable havoc among my present stock. It is what is called the “warbles,” or, in common parlance, the “wolf.” Each side of the spine is completely occupied by great whelks occasioned by the worms they contain, and to such an extent as to have caused the death of several of them. What remedy shall I apply?

Please answer in your next issue, and oblige

ROBERT KIRKWOOD.

Central Depot, February 9, 1868.

WARBLES.

Towards the latter part of the summer and the beginning of autumn, and especially in fine and warm weather, cattle out at pasture are frequently annoyed by a fly of the Diptera order and the *Æstrus* genus, that seems to sting them with great severity. The animal attacked runs bellowing from his companions, with his head and neck stretched out, and his tail extending straight from his body, and he seeks for refuge, if possible, in some pool or stream of water. (The fly seems to fear, or to have an aversion to the water, and cattle are there exempt from its attack.) The whole herd, having previously been exposed to the same annoyance, are frightened, and scamper about in every direction, or, one and all, rush into the stream. Under the excitation of the moment, they disregard all control, and even oxen at work in the fields will sometimes betake themselves to flight with the plough at their heels, regardless of their driver or the incumbrance which they drag behind them.

The formidable enemy that causes this alarm, and seems to inflict so much torture, is the *Æstrus Bovis*, the Breeze or Gad-fly, which at this time is seeking a habitation for its future young, and selects the hides of cattle for this purpose. It is said to choose the younger beasts, and those that are in highest condition. There has evidently been considerable exercise of selection, for a great many of the cattle in the same pastures will have only a few warbles on their backs, while others will, in a manner, be covered by them.

Naturalists and agriculturists are indebted to Mr. Bracy Clark for a very accurate account of this fly; and the author acknowledges his obligations to this celebrated veterinarian, and more particularly to that excellent French entomologist, M. Reaumur, for much of that which he is enabled to offer respecting the history of this insect.

The *œstrus bovis* is the largest and most beautiful of this genus. Its head is white, and covered with soft down—its thorax yellow anteriorly, with four black longitudinal lines—the centre of the thorax is black, and the posterior part of an ashen color—the abdomen is also of an ashen color, with a black band, edged with white, in the centre, and covered posteriorly with yellow hair. It does not leave its chrysalis state until late in the summer, and is then eagerly employed in providing a habitation for its future progeny. It selects the back of the ox, at no great distance from the spine on either side, and alighting there it speedily pierces the integument, deposits an egg in the cellular substance beneath it, and probably a small quantity of some acid, which speedily produces a little tumor on the part, and accounts for the apparent suffering of the animal.*

The egg seems to be hatched before the wound is closed, and the larva or maggot, occupies a small cyst or cell beneath it. The tail of the larva projects into this opening, and the insect is thus supplied with air, the principal air-vessels being placed posteriorly; while with the mouth, deep at the bottom of the abscess, it receives the pus, or other matter that is secreted there. A fluid, resembling pus, can always be squeezed from the tumor, and increasing in quantity as the animal approaches his change of form. In its early stage of existence, the larva is white like that of most other flies; but as it approaches its maturity, it becomes darker, and at length almost black. These little tumors form the residence of the larva, and are recognized by the name of *warbles*.

The abscess having been once formed, appears to be of little or no inconvenience to the beast on whose back it is found. It certainly does not interfere with his condition,† and the butcher re-

* The weapon by means of which the perforation is effected is a very singular one. It seems to be formed of three different pieces, inclosed the one within another, like the divisions of a telescope, and from the farthest and smallest the true auger, or perforator, proceeds.

† In 1823 and 1824, however, the *œstri* were so numerous in the department of Loiret, in France, and the tumors accumulated to that extent on the cattle, that they occasioned fever, inflammation and death. There was a disposition to inflammatory fever prevailing at the same time amongst most species of domesticated animals.—Rappart a la Société Royale et Centrale d'Agriculture, 1826.

guards the existence of these warbles even as a proof of a disposition to thrive. The injury to the skin, however, is another affair, and the tanner would probably tell a different story. The larva, if undisturbed, continues in his cyst until the month of June or July in the following year, and then forces itself through the aperture already described, and the accomplishment of which occupies two days. It is soft when it first escapes, but it soon hardens; and if it is fortunate enough to escape the birds which are on the look-out for it, or if it does not fall into the water, which the cattle seem now instinctively to seek, as it were to destroy as many of their enemies as possible, it conceals itself in the nearest hiding-place it can find, where it remains motionless until it changes to a chrysalis, which is speedily effected; it continues in its new form about six weeks, and then bursts from its shell a perfect fly.

It is a very singular circumstance, that the escape of the larva from its prison on the back of the ox always takes place in the morning, and between 6 and 8 o'clock. Is the mysterious principle of instinct already at work? Does the maggot know, that if it forced itself through the hole in the warble at a later period, the heat of the sun would destroy it; or that if it fell during the night, it would perish before it could reach a place of refuge?

Being also exposed to many dangers in its chrysaline state, it is then covered with a scaly box of great strength, and from which it would seem impossible for it ever to make its escape; but when its change is complete, and it begins to struggle within its prison, a valve at one end of its narrow house, and fastened only by a slight filament, flies open, and the insect wings its way, first to find its mate, and then to deposit its eggs on the cattle in the nearest pasture.

Some farmers are very careless about the existence of these warbles; others very properly endeavor to destroy the grub that inhabits them. This is effected in various ways—a little corrosive liquor is poured into the hole, or a red-hot needle introduced, or the larva is crushed or forced out by pressure with the finger and thumb. Although the existence of the warble is a kind of proof of the health and condition of the animal, yet there is no reason why the best beasts should be tormented by the gad-fly, or the strongest and best hides be perforated, and, in a manner, spoiled in their best parts. Although when the larva escapes or is expelled, the tumor soon subsides, the holes made are scarcely filled up during the season; and even a twelve-month afterwards, a weakness of the hide, and disposition to crack, will show where the bot has been. If all the farm-

ers could be induced to search for and destroy the insect when a larva, the cattle of that district might be nearly or quite freed from this pest.—*Youatt on Cattle.*

In order to facilitate the removal of the larva from the backs of the cattle, it would be well to enlarge the hole in the skin, made by the ovipositor of the gad fly, by a slight incision with a lancet; then squeeze out the bot, and put a little tar over the wound, which will protect it and probably cause the opening in the skin to heal up entirely.

To prevent the deposition of the egg, it will be a good practice to commence, as soon as the weather becomes decidedly warm, in the spring, with the application of salt on the backs of the cattle, which will cause them to lick each other and so diffuse a saline savour over the entire surface usually sought by the gad-fly. Salt is distasteful to the whole insect tribe, as well as a deadly poison to most of them, and if a few grains enter the opening in the skin, if perchance an egg has been deposited, it will be brought into unavoidable contact with the larva, and will assuredly kill it in that tender state.

Whether this use of salt prove a preventive or not, it will certainly improve the social habits of the cattle.—ED. SO. PLANTER AND FARMER.

About Weeds.—No. 1.

WHAT ARE WEEDS ?

If we should put this question seriously to any farmer in the land he would doubtless think we were asking for information which should be obvious to every person of ordinary understanding, for so numerous and widespread are noxious weeds that we may safely assert that no farm can be shown, which has been cultivated for a period of twenty years, now entirely free from the presence of this pest. Yet who has given an accurate definition of the term "weed." Webster defines it as "any plant that is useless or troublesome," but it is obvious that many useless plants would not be recognized by farmers as weeds, and of all plants it may be said that they are troublesome. The phrase "noxious plants," although far from being accurate, is frequently used as a synonym for "weeds;" and expressiveness has been claimed for the term "plants out of place." But without continuing these remarks further, we will proceed to treat the subject of "plants, the growth of which is injurious to the farmer's interests."

HOW WEEDS SPREAD.

When land is first brought under cultivation it is found nearly free from weeds, unless in proximity to older settled regions, whence seed has been deposited on new lands, where they only await favor-

able circumstances to spring into life. Most of our weeds are of foreign origin; they spread and increase with civilization. Few are indigenous to our soil. Hence it is a matter of importance for farmers to understand what avenues of approach they must guard to check the advance of the enemy. Weeds are almost invariably transferred from one locality to another by carrying the seed, but many kinds, after they are once established, increase rapidly from their roots. Along the rivulets and rivers the roots of some weeds, as alders, couch grass and the Canadian thistle, may be carried considerable distances by freshets, and deposited on the fields when the floods subside. Seeds spread in the same way. Straw and hay used for packing merchandise and nursery trees, which are sent long distances and throughout the whole country, often contain the seeds of weeds, and the mischief resulting from carelessness in this respect is frightful. Birds carry seeds from one farm to another very readily and frequently to considerable distances, and weeds are also introduced by animals—as many of the hard-shelled seed will grow readily when voided in their excrements. Seeds are carried from one farm to another by thrashing machines, and the downy bloom of the thistle and milkweed float in the air through miles of space. Once established on the farm and nearly every operation of the husbandman facilitates their spread; when he ploughs and harrows, the creeping roots of perennial weeds are scattered; when he gathers the straw and hay from his fields to the barn and transfers the manure from hence to other portions of his farm the vital seeds of weeds go with it; stock carry the seed as they roam from one pasture to another; and birds rest on the fences and straightway the corners are filled with weeds. Grain, and grass seed, frequently contain the germs of weeds, and no farmer can take too much care in scrutinizing seeds not grown on his own premises.

The means by which weeds are spread, are indeed innumerable; they avail themselves of all modes of transportation. They ride in the steamboats and the rail-car and journey in the emigrant's wagon across the virgin prairie towards the setting sun, and the winds and waters spread them abroad.—*Moore's Rural New Yorker*.

No man's spirits were ever hurt by doing his duty; on the contrary, one good action, one temptation resisted and overcome, one sacrifice of desire or interest, *purely for conscience' sake*, will prove a cordial for weak and low spirits, far beyond what either indulgence or diversion, or company, can do for them.

Important Suggestions to Those who Desire to Aid in Sustaining the
Southern Planter and Farmer.

Mr. Editor,—Allow me to congratulate you on the manifest improvement in your valuable paper, in one particular, during the last few months. In November last, when I renewed my subscription, for the first time since its suspension by the war, I noticed and complained of the paucity of original articles which it contained, and remarked on the unsuitableness of most of its articles, which were generally scientific or impracticable, to the great majority of your readers. It now reminds me, Mr. Editor, of the good old times “lang-syne.” And though it is more difficult in this section of country *now* to beg, borrow, collect, or get in any manner \$2, than it was *formerly* \$200, I must have your paper. I must deny myself some luxury, or curtail some of the necessaries, sooner than be deprived of your valuable and interesting paper; and my only regret is that by doubling the amount I cannot get *two* copies of the paper a month. And why can we not, Mr. Editor, have a semi-monthly edition of the Planter and Farmer? An additional \$2, and two or three plain, common-sense contributions a year, giving the results of experiments; the success or failure of any crop, and causes; the manner of raising and managing stock of any kind, with profits or losses; any system of hiring and managing freedmen, &c., &c., from every one who now reads and enjoys, and is benefited by your *Southern Agricultural* paper, would do the thing at once; and we would have a rich and valuable semi-monthly Southern Planter and Farmer of as many pages and filled with as valuable material as the present monthly contains.

The politician must have his *daily* dose of political news; the successful merchant must have his semi-weekly and daily circulars and reports of the money market; the intelligent and moral family must have its weekly religious and literary newspaper—they all must keep up with the times. And must the poor farmer, who digs and toils and struggles; who pushes up hill all the time against discouragements and adverse circumstances, against the results of our recent overwhelming losses, against unpropitious legislation and sweeping taxes, be content to struggle also against ignorance and want of information? It is more than ever important *now*, that the farmer should keep up with the times; that he should read and study agriculture; that he should know of every new invention and discovery and labor-saving machine; that he should study the markets; that he should consult, and confer, and compare notes with his bro-

ther farmers. And *once a month* isn't quite often enough for this. We get hungry from month to month. The farmers can and should make the "Southern Planter and Farmer" an *inestimable semi-monthly*, without consulting you very much about the matter, Mr. Editor. I know your part will be well and willingly done. The two articles in your last number, "On the Cultivation of Corn" and "Watt's Plough and Thoughts on Ploughing," from men so well known as Dr. Atkinson and Mr. Ruffin, are worth more than ten years' subscription to your paper. Farmers should eschew politics, and yet you will find ten who take a political *weekly* or *semi-weekly*, at double the price, to one who subscribes to your interesting monthly; and verily and indeed, Mr. Editor, either one of your last two numbers is worth more than all of the politics which has been written, and read, and concocted, in America, since George Washington made the great mistake of gaining our independence.

But I am writing more than I intended. I write to send the above subscription, and to ask that you or your correspondent, "E. T. T.," who gave, in your last, the interesting review of the contents of "Report of Department of Agriculture, 1866," will put some of your readers in the way of getting the information mentioned by "X.," as contained "on page 502 of the Report of the Department of Agriculture for 1865," in "an essay upon a System of Farm Accounts, by John H. Bourne, of Marshfield, Massachusetts," for which information please present to "X." the thanks of,

Yours truly,

FARMER.

Granville County, N. C., February 20, 1868.

If the edition of the Agricultural Report of 1865 has not been exhausted by distribution, we have no doubt but that the Hon. Hugh Capron, Commissioner of Agriculture, will promptly send it, by mail, to any person who will address to him a respectful application for it.—ED. SO. PLANTER AND FARMER.

Reply to F. G. Ruffin's Article Headed "Geo. Watts' Plough in a Tight Place., &c."

In reviewing the above article, I cannot dissent from a single position taken by its author, save the one in regard to the "supplanting of the plough by the steam rotary digger;" and even in that, my opinions are theoretical, not practical. Yet I cannot see how a steam rotary digger could be made to turn under and work thorough a cover of clover, peavines, and the natural heavy growth of river mud-lands, such as he describes, and such as I saw effectually done by the plough in question.

It is necessary that such heavy covers should be turned under the surface, to decay, and act as food for the plant to be raised, and to get it out of the way of the smaller one-horse implements used in the cultivation of crops.

If this cover be intermixed with the soil, so perfectly disintegrated by the digger, it must become a very great impediment in the operation of the smaller implements used in the after cultivation of crops. Thorough pulverization and depth of tilth being the great desideratum to be attained by the digger, I claim, without fear of contradiction, that Watt's plough will accomplish both, to a depth of from twelve to fourteen inches, in a manner more cheap and practical than the digger, and—when it can be done at all—as perfectly, not to insist upon the greater advantage of turning the cover under instead of mixing it with the soil in an unrotted condition. Again, the multitude of seeds that would be left on the surface to grow up with crops, under the operation of the digger, are buried beneath their vegetating depth, with the plough. Thus they become food for the crops, by decay, instead of being a pest in the growth and cultivation of the same. These are my views, yet I may be wrong and Mr. Ruffin right in his theories on this subject as yet unknown in this country.

One other matter treated of by Mr. Ruffin is, the “metal and character of my plough points.” Owing to several causes which I could not control—a year ago—I was compelled to use in making my points a costly metal which is always soft. It has been a difficult thing since the war to select in the Richmond market the proper metal to make the best plough-castings; on that account, in various instances, I have been obliged to use a soft but costly metal, and Mr. Ruffin and some others have been supplied with points which were made of it; hence, a just complaint. I have however, now turned my attention to the more careful selection of metals which I could not do while getting up my Patents and Paterns; and am making the best plough-castings I have yet made, and pledge myself to furnish henceforth only such as are superior in every particular.

GEO. WATT.

RUSTY STRAW—EFFECTS ON ANIMALS.—B. McClure states in the Practical Farmer that feeding rusty straw to cattle and horses has a very injurious effect upon their health and efficiency. The class of diseases induced by this aliment are marasmus, glanders, farcy, skin diseases, catarrhal affections and watery swellings of the body and legs. He adds that during the last eight months, out of 700 horses fed upon straw, from 45 to 50 were on the sick list.

Rules for Farmers.

1. The farmer ought to rise early to see that others do so, and that both his example be followed and his order obeyed.

2. The whole farm should be regularly inspected, and not only every field examined, but every beast seen at least once a day.

3. In a considerable farm it is of the utmost consequence to have hands especially appropriated for each of the most important departments of labor, for there is often a great loss of time where persons are frequently changing their employments, and the work is not executed so well.

4. Every means should be thought of to diminish labor or increase its power. For instance, by proper arrangement, five horses may do as much labor as six perform according to the usual mode of employing them.

5. A farmer never ought to engage in a work, whether of ordinary practice or intended improvement, except after the most careful inquiries; but when begun, he ought to proceed in it with much attention and perseverance until he has given it a fair trial.

6. It is a main object in management not to attempt too much, and never to begin a work without a probability of being able to finish it in due season.

7. Every farmer should have a book for inserting all those useful hints which are so constantly occurring in conversation, in books, in papers, and gathered in the course of his reading or in practical management.—*Sinclair*.

Buckwheat as a Green Crop.

Where this grain is sowed the 1st of August, it will be in condition to plough in for a rye-crop the last of September. We have seen rye taken from a field four years in succession, with no other manure than buckwheat turned in at the time of sowing the rye. There was a constant increase in the yield of the grain, showing the benefit of the green crop. If the land is not strong enough to give a good growth of buckwheat, some manure will be necessary. A continued succession of grain crops does not show good husbandry, but it may answer for remote fields, where stable manure cannot be applied economically. The green crops and the grain should come in a regular rotation, and if the soil is thin, several green crops may be turned in, in succession, with profit.—*American Agriculturist*.



Horticultural Department.

Native Varieties of Fruit.

Previous to the late war, it was the universal custom of our people to look to the North or Europe for every article of use, comfort or luxury that we needed, excepting tobacco, cotton, wheat and corn. Of no department of industry, not even excluding the mechanical, was this more true than of Horticulture. Our seed, our fruit trees, our flowers, were all imported; with what success, the miserable condition, or rather want of condition, of our orchards and gardens at the beginning of the war will testify.

By far the larger number of Virginia orchards were filled with varieties of fruit (especially apples) eminently adapted to Massachusetts, and as worthless in this latitude; and even now, with a very few exceptions, we are cultivating varieties by no means well suited to our climate. In this portion of the State, for instance, what varieties in general cultivation deserve the title of first-class winter apples, save Wine Sap and Albemarle Pippin? Many other excellent kinds are grown, which, farther North, are fine keepers, but which here are, at best, but good autumn varieties. The cause of this is apparent. Our people have not attempted to produce native varieties from seed, and where such have sprung spontaneously on the farm, no effort has been made to propagate and disseminate them. Until this is done, we need never expect to have good winter fruit, and the sooner we set about it the better. We have lately noticed in these pages two new varieties of apples originating in Eastern Virginia, both of which give promise of becoming standard fruits; and we are glad to know that at least one of these is being extensively propagated by the Virginia Nursery and Wine Company. But we are confident that there are many such seedlings scattered all over the State, which are far more worthy of general culture than any of the varieties now in vogue,

and we most earnestly solicit our readers to forward us specimens of any they may possess, or be acquainted with, and at the same time to send us scions, so that we may have them propagated, if deemed worthy of dissemination.

A correspondent in North Carolina (in a private note) complains that the variety of apples offered by Virginia nurserymen, do not suit his locality much better than those of Northern growers, which is partly due, no doubt, to the fact, that the apples which are adapted to Virginia, are not equally well suited to his section; but we assure him that if he will designate local varieties specially adapted to his region, and send us scions of the same, our nurserymen will gladly cultivate them. It is impossible for growers or purchasers to get what is best suited to their wants, unless those interested in fruit culture will thus bring to light such seedlings as they know are worthy of culture.

The Virginia Nursery and Wine Company announce as one of their leading objects the collection, propagation and dissemination of all native varieties of fruit which, after trial, are proved worthy of general cultivation. Their extensive sample orchards afford a fine opportunity of giving all such seedlings a fair test, and we shall be happy to be the medium of conveying to them scions from any of our readers.

Spring Work.

The extreme severity of the winter just ended, during which there was hardly a day in which anything could be done in either orchard or garden, save perhaps some pruning and manure-hauling, will render it the more necessary to exercise diligence and energy in prosecuting all the horticultural and pomological work of the farm.

Vineyards, orchards, and kitchen gardens, are all to be planted, and the season for this work is short. But while this is true, we would caution our readers against "that haste" which is a destructive one.

It is a bad plan to postpone, to another season, planting your orchards or vineyards, but it is worse to do it in an indifferent way. Nothing more imperatively demands care and labor at the outset than they do, and it is sheer folly to slight them. Be prompt in sending your orders to the nurserymen—be active in preparing the ground, and plant as soon as it can possibly be done.

In the kitchen garden, while all due exertion must be used, still great care must be taken not to work the ground until it is fully

ready. Should the present season be as backward as that of 1867, not much can be done in the garden before April, except to make preparations to prevent delay when the spring does fairly open.

Another New Apple.

Mr. James Hunter, of Hanover, will please accept our thanks for specimens of a seedling apple grown by A. M. Morris, Esq., of the same county, which is well worthy of notice.

It is of medium size, red and green color, resembling Pryor's Red, sweet, but not highly flavored, and at this date, (February 10th,) perfectly firm and hardly mature. While its quality is not first-rate, still it is worthy of culture as a good keeper. We understand that it will be propagated by the Virginia Nursery and Wine Company, under the name "Morris's Winter."

Watermelon and Muskmelon.

While in some portions of Eastern Virginia the watermelon is quite a leading crop, still its culture has never had that attention (except, perhaps, in the immediate vicinity of Norfolk and Portsmouth) which it deserves, and which has been given it along the Eastern Shore of Maryland. The Richmond market is tolerably well supplied with this fruit, mainly from Henrico and the adjacent county of Hanover, but this supply is grown by small farmers, who give the crop no special care; and if the fruit is good, the credit is due only to the eminent adaptability of the soil to its production. We do not know of a single person within a radius of fifty miles of Richmond, indeed in any portion of the State (with the exception above mentioned of Norfolk and Portsmouth), who makes this crop a specialty, and yet there are few fruits, if any, which offer a more certain field for the development of rich profits. 'Tis true that melons will mature around Norfolk and on the Eastern Shore of Maryland a week or ten days earlier than they will in this section, still here they can be put into market at least two weeks earlier than those grown on Long Island and in New Jersey, and although we cannot obtain as high prices as those more favorably located, we can secure such as will be highly remunerative.

An acre of watermelons contains six hundred and eighty hills, and at the low average of three melons to the hill, gives a yield of

two thousand, which if sold in New York at twenty-five cents (about the lowest figures they reach until very late in the season), will make a gross yield of five hundred dollars—and even allowing three-fifths of the price for expense of cultivation and transportation to market, yet leaves a net income of two hundred dollars per acre.

In view of these statements, and the fact that even in the Richmond market good melons are rarely sold for less than twenty cents each, is there not abundant encouragement to our farmers to enter more largely upon their culture, and to give them the care and attention due to a profitable market crop.

A few suggestions concerning soil and varieties may not be amiss.

As is well known, a sandy loam is best adapted to its successful fruiting—heavy soils will not do, but any fertile sandy soil will answer. The seed should be planted in hills eight feet apart each way, and carefully cultivated with plough and hoe until the vines cover the ground.

We mention the three leading varieties in the order of their merit:

Jackson.—Medium size; long, but slender; rind of a rich green color, but thin; meat, a bright red, very rich and sweet; seed, small and white. The best in quality, but owing to the thinness of its rind, not so desirable for transportation.

Mountain Sweet.—Large size; long, oval shape; marbled green skin: flesh, red and rich. Of excellent quality, and bears transportation well. It yields very heavily.

Long Island.—Very similar to the above, but claimed by some to be a little earlier.

There is a new variety called the *Hunter*, which has been introduced by Messrs. Allan & Johnston, of this city, and is being extensively grown by them for dissemination next year—if it succeeds as well here as it does in Maryland, where it originates, it will soon supersede all others. We shall notice it more particularly when we see it fruited this season.

Muskmelons are also very profitable, both for home and foreign markets. They bear transportation, and can be ripened here at least three weeks earlier than in New York. Their culture is very similar to that of the watermelon. They should be planted on a moderately rich, light soil, in hills from five to six feet apart each way.

The best varieties are Citron, Nutmeg and Skilman's Netted, all of which are rough-skinned and very firm varieties, well-adapted to shipping, besides being of the finest flavor.

The profits from both of these crops may be greatly enhanced by starting the seed in hot-beds and transplanting to the hills after the weather has become settled and warm, which will hasten the maturity of the fruit from one to two weeks.

Grapes and Wine.

Mr. Editor,—It is gratifying to observe from your pages that renewed attention is now paid to horticultural matters in your State. The advantages of the country and the inducements to plant fruits of all kinds, and especially the grape, are well set forth in the January number. Allow one who has visited your beautiful slopes and valleys, which lie on the Atlantic side of the Alleghany range, to venture a few suggestions to your planters.

SOIL.—Do not be too anxious to have a very rich soil. It may be too rich. What is needed is a friable loam of medium fertility, but which, if poor, may be put into good heart by lime and clover, and perhaps some manure. Sands, however, on one hand, and heavy clayey loams, such as are generally called clay lands, on the other, will produce excellent grapes; some varieties seem to prefer one and some another.

PREPARATION.—Many writers have discouraged young vine-planters, and those who wish to plant vines, by their recommendations to trench the ground deeply with the spade, at an expense of one hundred dollars or more per acre. A good deep ploughing with a double Michigan plough, if the soil be deep enough to bear inverting the earth a foot or fifteen inches deep, is the best implement to do the work, and it may be followed with a *subsoil lifter* to stir the bottom of the furrow six or eight inches more. If the soil be shallow, and the sub-soil be unfit to be thrown on top by the trench plough above named, you may use any good plough and reverse the soil as deeply as it will bear, and then fallow with the sub-soil lifter once, twice or three times, till it is got down to the beam.

If this work be done in the fall and early winter, you will have the benefit of the winter's frost—more than equal to another ploughing and harrowing. Early in the spring, the land should be cross-ploughed, well-harrowed and put into fine tilth, when it will be ready for planting.

PLANTING the vines is a simple matter, and yet it needs care in its execution. An excellent method of digging the holes is to use a two-horse plough, going twice in one furrow across the field where

the rows of vines are to stand. These should be wide enough apart to admit of free access with the cultivator—we generally prefer eight feet. After the furrows are made, a short stake, say two or three feet long, should be driven into the soil in the furrow at every station where a vine is to be planted—these may be six or eight feet apart. We are now ready to plant the vines.

Having trimmed the tops to about eight inches, and the roots to, at most, a foot in length, the mellow earth is removed from one side of the stakes in the furrow. These holes should all be made on the same side of all the stakes, so that in after cultivation the workman may know where to look for the plant. Taking a vine in the left hand, it is placed beside the stake, with its roots extended and well spread out; then with the other hand, or with a trowel, some fine mellow earth is spread over them and worked in among the roots; and when these are covered about an inch, the ground is gently pressed upon them. If the soil be too poor, it is sometimes advisable to have a pile of good compost, half a bushel, placed by each stake, and this is used in setting the roots. The rest of the earth is now thrown into the furrows loosely, on each side of the stake, so as to bury the vine, allowing only two buds or eyes to project above the general level of the field. The remainder of the furrow between the vines is left open—it will be filled up by cultivating during the season.

Finding that this article will be extended to too great length, let us take a rest here, and postpone further treatment until a later number, when the recommendations may be more seasonable.

Varieties cannot now be considered, except to congratulate you upon your appreciation of healthy and vigorous kinds—none others should be planted. The Norton, Concord, and Ives, are all of this character, and with a few Hartford, for early fruit, they are safe, and should be planted extensively. W.

Pindars, or Ground Peas.

We have seen in some one of our periodicals directions how to plant and cultivate the pindar, and as we have made this article by the acre, and seen fields of them, we differ from the writer.

Our direction is, break up land deeply and thoroughly so as to pulverize it completely—of course there are lands better adapted than others, light earth, not the heavy clays would be our choice—then run off rows three and a half to four feet and bed thereto with a light furrow, making a flat bed. If the pindars be not hulled,

break in two, so that moisture may more readily reach the pea, and after opening a furrow with a narrow plough, bull tongue, or even a piece of hard wood shaped like a bull tongue, drop the seed two in a place, two feet apart, about the time of corn planting, if not hulled—if hulled, later; for frost will kill—then cover about two inches deep.

When the pindar is up, scrape as for cotton, then dirt as for cotton, keep clean, earth stirred with cultivator or sweep, and do not molest the branches or put earth on limbs.

The bloom is always just above where a root puts forth from the limb on which the pindar is formed, the bloom is above the pindar on the rootlet in the ground, and it is just as wise to cover the bloom on potatoes, as to cover the bloom on the pindar. We have large fields where the pindar was dropped, in the same hill where corn was dropped, and both cultivated together. A friend, now deceased, who planted some two hundred acres of corn, in Mississippi, assured us he fattened his pork in his cornfield, where he always had pindars with his corn, and, though a cotton planter, made meat for sale.

We have had sows too fat to breed, from our pindar patches, and we never cover vines and always gave about four by two feet as distance.—*Southern Farmer*.

THE PEANUT CROP.—The Wilmington (N. C.) *Journal*, in alluding to this subject remarks:—

From the statistics compiled and published in the *Journal*, we find that the crop of last year, including shipments as well as sales, amounting to 62,450 bushels. This year the crop is variously estimated at from 75,000 to 100,000 bushels—many think the latter figures are nearer the mark. It is estimated by the merchants that about 30,000 bushels of this year's crop have already been shipped.

The Norfolk *Journal* says:

A very large portion of the peanuts used in the Union pass through the hands of our merchants. They are raised in the lowlands of Virginia and North Carolina, and hardly anywhere else. Those from Virginia are used principally for eating purposes, and those of North Carolina for oil. Our farmers have turned their attention to the culture of the peanut much more of late years than formerly, the cause of which is that they bring a much larger price than in years gone by, being quoted at from one dollar and forty cents to two dollars and sixty cents a bushel, according to quality. An acre will produce more in this pea than anything else, and by the application of guano to our quick lands an abundant crop is obtained and a very certain one. We hope that our farmers will grow peanuts more extensively than they have yet done; for our system of cultivation must change from large farms to small, and we must try to make every acre bring its utmost.

Training and Pruning the Vine.

The principles which govern the correct pruning of the vine are well understood by American vineyardists, but the majority of our farmers who cultivate grapes merely for family use seem, as their practice intimates, to be tolerably muddled in their ideas of training and trimming. It is seldom one sees a well trained grape vine in a farmer's garden, and as rarely does the owner thereof *know how* to train the vine properly. Yet it is a very simple operation, requiring care and attention rather than hard labor. One must likewise begin with the planting of the vine, and work with correct knowledge, and a clear idea of what he wishes to achieve. By the aid of the engravings we have made to illustrate the subject, we hope to make it clear to every reader who has an interest in it.

We will start with the planting of the vine, and that is the only place of beginning, for in undertaking to renovate an old and badly trained vine, the best way is to cut it so as to force out shoots from near the ground, and practically deal with it then as with one newly planted. Fig. 1 represents a strong vine as it is pruned for plant-



FIGURE 1.

ing; it is cut down to two eyes or buds, each of which will throw out a shoot. The first year, however, we only desire to grow one cane, and the second bud is left to ensure against accident. When the young shoots are two or three inches long, the weaker should be rubbed off. If possible, it is better to save the lower one. A stake should be planted near it, and the shoot carefully trained and tied to it as it grows. The lateral shoots must be pinched when they attain a couple of leaves, so as to throw the growth into the main cane, which we desire to grow strong and thoroughly mature. Fig. 2 shows the vine after it has made the first year's growth, and is ready for pruning. The cross marks indicate where the knife should be applied. The cane has grown from the lower bud, and the arm of old wood must be cut away. The cane itself is cut down to three buds. The novice may ask what has been gained by the season's growth, as the pruned vine has only one bud more than when planted a year ago. We have gained strength of root sufficient to grow

two good canes the second year instead of one. There are three buds saved, all of which, if nothing happens, will grow. As we



FIGURE 2.



FIGURE 3.

only wish to grow two canes, one of the shoots must be rubbed off when the others are safely started.

These two canes must be tied to the stakes, the laterals pinched, and in every respect treated similar to the one cane grown the preceding year. In September the tips of the canes should be pinched to check the growth and mature the wood. Fig. 3 represents the vine at the end of the second year's growth, and ready for pruning. The cross marks show where it is to be pruned. The canes are each left twenty inches or two feet long, and the third year are to be bent down horizontally to form the arms of the vine. The stake is now to be removed, and a trellis built, the lower slat or wire of which should be about a foot from the ground. Four or four and a half feet is sufficient in height. The best form of trellis is that having a top and bottom rail, with wires stretched perpendicularly between them.

The arms being laid out and fastened on the lower rail or wire of the trellis, the object of the cultivator is to grow, during the third year, a certain number of upright canes from the horizontal arms, and also two from the extreme ends of the arms for the purposes of extending them still further in a horizontal direction. If the vine is strong it may carry some fruit this year; not more, however, than one cluster to every upright cane should be allowed.

Fig. 4 shows the vine at the end of the third year's growth. The

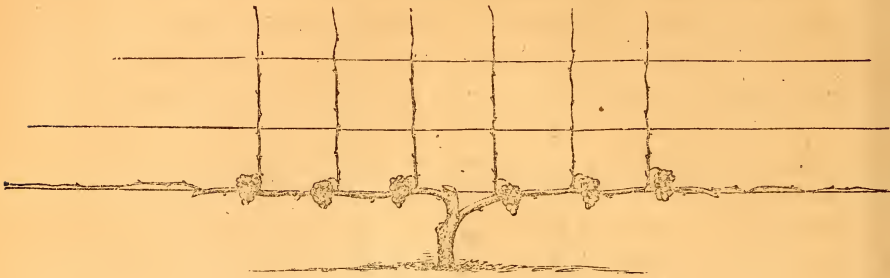


FIGURE 4.

upright vines growing from the horizontal arms should be from seven to ten inches apart, depending somewhat on the variety. Some skill and care will be required to start these upright canes at proper and equal distances. If the wood of the arms has been properly grown it will be short-jointed and the buds thick enough so that no difficulty will be experienced. In the spring it is a good plan to bow the arms a little, bending the extremities downward, in order to have the buds start evenly. The reason of this is that the sap tends strongest to the extremities of the vine, and the shoots there will rob those further back. Bending the ends down prevents this. When the buds break strongly those for the upright canes should be selected and the rest rubbed off. These uprights should be treated precisely as the canes that grow to the stake; the laterals pinched, and the ends also when they reach the top of the trellis. The shoots on the ends designed for extending the arms next year should be trained along the lower bar or wire, and the laterals also pinched.

Some may ask why not lay down the whole length of these arms the third year; why prune so close and grow wood again for their extension? Simply, because the vine is not strong enough to bear such forcing, and that vigorous uprights could not be grown the next year on such a length of arm. The pruning of the vine at the end of the third year's growth consists in cutting the upright canes down to the bud, and shortening those for extending the arms. After being pruned it will present the appearance of Fig. 5. The



FIGURE 5.

bases of the upright canes cut away will project from the arms, and

are called spurs; they are intended to be permanent and to grow each year a cane for bearing fruit. The fourth year then, an upright cane will be grown from each of the spurs, and also four more from the additions made to the horizontal arms. Each cane will carry three bunches of fruit. At the end of this year we will consider that our vine has reached the limits of its extension, and all we have to do in the future is to maintain it in the same shape. Practically, however, it should take a year or two more to extend the horizontal arms to the desired length, but as the process is only a repetition of the third year's operations we will not consider it further.

Fig. 6 represents a full grown or complete vine at the end of the

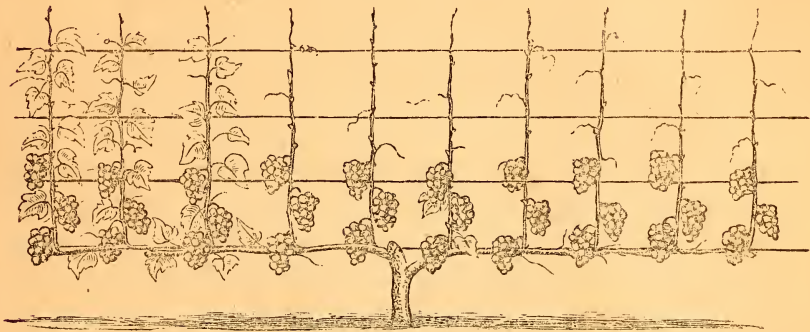


FIGURE 6

season. The winter pruning of this from year to year, is simply the cutting of the upright canes just above the lowest bud, leaving the vine as it appears in Fig. 5; the summer pruning consist in rubbing off superfluous shoots, if any appear, in pinching the laterals of the upright canes and their extremities when they reached the top of the trellis. By cutting the canes to the lowest bud the spurs will be lengthened a trifle each year, if they become inconveniently long they may be cut close to the horizontal arm, and a cane trained up from dormant buds which will be forced to break by this treatment.

This system of pruning and training affords a chance for all the fruit a vine should bear; it is grown from one level and therefore each bunch and leaf has an equal chance in the amount of sap; the pruning is easily and rapidly done, and the general appearance of the vine is graceful and pleasing.

Figure 7 shows how the system may be applied to covering a high trellis, as it is oftentimes desirable to use the shelter of the side of a wall, fence or building for the purpose of growing grapes. Tall

trellises may be covered with fruit bearing wood by planting vines enough and carrying the stem of some to the various levels above before the horizontal arms are allowed to grow. In the illustration

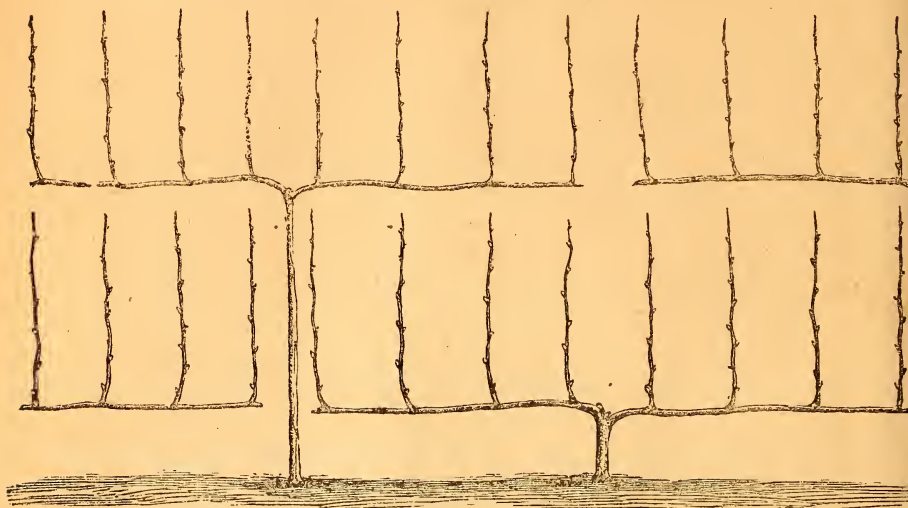


FIGURE 7.

the trellis is represented from eight to nine feet high, and two series of vines are grown. The upper vine is precisely like the lower except in length of stem. A third and even fourth series might be grown by using care in growing the stem to a sufficient height before taking out the horizontal arms.

We are indebted to that Prince of good fellows, D. D. T. Moore, Esq., Editor and Proprietor of the Rural New-Yorker, published at Rochester, N. Y.—one of the very best of our Agricultural, Literary and Family Weeklies—for the illustration of the above articles and the embellishment of our pages as well. They are electrotypes of the cuts used in his paper, kindly procured for us with much trouble to himself, to enable us to transfer from his paper to ours the very instructive and practical article above exhibited.—ED. SO. PLANTER AND FARMER.

A BED OF LILIES.—By all means plant out a bed of Japan lilies. Select, if you can, a position where when they come into flower you will have to look up rather than down to see the flower; make the ground two feet or more deep, working into it plenty of well-rotted compost manure; then get the varieties of lily in all their numbers; plant them at distances of about one foot apart each way, setting the bulb in clean sand and covering about three inches deep —*Horticulturist*.

Mechanic Arts.

Routt's Improved Southern Corn-Planter, with Guano Attachment.



The annexed cut represents Routt's Southern Corn-Planter, adapted to one or two horses. It is a simple, strong and durable device, and a man and horse can plant from ten to twelve acres per day, together with any kind of pulverized fertilizer. The machine is so constructed that the operator can see every particle of seed and fertilizer as it falls from the distributing cylinder through the conducting tube to the ground. One-third of the distributing cylinder is exposed. In short, it is considered the most simple and effective Corn Planter ever introduced to the farming community. Many hundreds of them are in use, and the many testimonials in the way of premiums and medals awarded, as well as certificates of most reliable farmers, commend this machine as one of the best in use.

Innovation.

Whoever has watched the progress of the application of mechanical appliances designed to supersede operations as previously performed by hand, has no doubt observed that the principles employed are widely different from those of the manual operations, and that nearly all the operations are performed by means of mechanism, are exactly the opposite of the former modes of working; and from what has been done we may deduce the conclusion, to which there are few exceptions, that every innovation upon hand labor will be successful only when the principles upon which it has been accomplished are entirely discarded, and some method involving none of those principles is employed:

In the manufacture of leaden pipe the old plan was to cast the lengths in short pieces, and then connect them by some subsequent means. The form was given to the pipe by casting the molten metals around a mandrel, which formed the bore of the future pipe. Now mark the innovation upon that, as it would seem the only method by which pipes could be well formed. Instead of casting the metal in the form of a pipe, the solid lead is pressed through a die and the pipe issues continuously until the charge which was fed through the die is nearly expended; then another molten mass is poured in contact with the remnant of the last, soldering itself to it by its own heat, and when this mass is cooled it is forced in like manner through the die, and the pipe formed from it is continuous to the previous length. In the former method, the pipe is formed of molten lead and by casting it around a mandrel; in the latter, of solid metal formed by forcing through a die—two states of the metal and two manipulations widely different.

So in the manufacture of bird shot, as used by the sportsmen. The old method was to cast the pellets in a mold, and the innovation upon that mode is to scatter the molten lead through a riddle from a great height, and in falling it assumes perfect spheres.

• In the sewing machine, an implement which has revolutionized many trades, we see means and principles employed which are directly opposite to the manipulations as performed by hand. In this latter instance, the lengths of thread are short and require to be frequently renewed; the fabric is held stationary, and the needle, having the eye at its head, is advanced, as it were, as the seam progresses, by the fingers of the operator; the needle is thrust through the material and does not return in the same path it entered. In the machine the fabric moves, the needle travels in a fixed path, the

thread is continuous, and the eye of the needle is at the point which first penetrates the article or material to be sewed. All attempts to imitate, by machinery, the hand seam and the hand method of producing such hand seam failed, and innovation was success only when it wrought out an entirely new method and employed a new principle.

It would seem that the force of steam, the world's great motor, would be in application to produce a continuous circular movement, similar to the effect of power upon the water-wheel or wind-mill; but attempts to thus apply it have not been rewarded with any signal success, and the reciprocating piston, travelling in direct lines, is still conceded to be the best method of applying steam as a motive power.

In the innovation upon the sickle and the scythe we see the principles upon which they operate entirely discarded, and, instead, new methods, new forms, and new principles introduced. No success attended the attempts to sever the stalks of grain or blades of grass with a blade swung in circles by mechanism, and it was only when the vibrating cutter-bar was applied to the reaping and mowing machine that success attended the use of this now indispensable implement.

Printing from rotary cylinders is another illustration of the successful innovation upon the hand or platen press. Although the platen press is still employed for nice work, it is wholly inadequate to supply the enormous editions which are required to meet the demands of our daily and weekly papers. The platen and the cylinder—two more different methods to produce an impression from type on paper could not well be devised.

The innovation made upon fire-arms, comparing the recent breech-loader with the muzzle-loading musket, is a great one. It is true, breech-loaders have been made years ago, but they were not then a success, and were proven so only when innovation threw aside the old form of cartridge and introduced a metallic substitute which carried its own fulminate. As the principle and mode of manipulation of the breech-loader differs from its muzzle-loading predecessor, so the newly-adopted cartridge which makes the former a success differs from its paper progenitor. When used, the paper case of the latter must be rent so as to admit the fire of the fulminate contained in the copper cap, and no success attended the attempted breech-loading innovation until this principle of cartridge was entirely discarded and a new form and method wrought out.

Examine every trade, every operation, every piece of work upon

which innovation has been made, and the observation holds good in almost every case, that to be successful a new principle must be introduced differing from that previously employed. Illustrations are numerous. The paddle moving in a reciprocating manner propelled the canoe, the revolving wheel and the screw propeller urge forward the steamer; Vulcan swung his hammers at his forges in the arcs of circles, the steam hammer moves in straight lines; the carpenter drove his hand-plane in lines direct, but the planing-machine cuts its shaving with revolving blades; the husbandman scattered the seed by throwing it forcibly before him, the sowing-machine carefully drops the grain in its bed, and it falls by its own gravitation. The instances we have mentioned are but a tithe of those that might be enumerated, and he who would be successful in his attempts at innovation must discard entirely old means, methods and appliances, and employ new devices and bring new principles into action.—*American Artisan.*

Household Department.

Maturing Poultry.

Wheat screenings and cracked corn I find to be the best adapted feed for chickens; this should be fed to them as often as twice a day; while in the interim something should be placed at their pleasure to pick at. I dissent from the idea that fowls should ever go hungry in order to grow fat or to lay eggs. I have never learned how to fat or bring fowls into a parturient condition by feeding little or nothing! Broom-corn seed, well-ripened, affords my fowls a constant supply of wholesome and cheap provender, for lunch, between their regular feedings of screenings or corn; and I find my corn and buckwheat, etc., do not disappear so quickly by voraciousness as where they have to rely wholly on stated feedings.

Good authorities have laid down *one* rule among many good ones, which I appeal from to the good sense of my brother poulterers, so far, at least, as it regards growing chickens, that is:—"Never keep feed before them all the time." Working on the system of human physiology, this sounds very well; but an infant receives its sustenance when it cries for it; I believe our infant chickens, being able to help themselves, without crying for it, should be permitted to do

so. Boiled feed, such as potatoes and meal, with small or large pieces of meat, as can be afforded, hasten the growth of poultry very much; use as much pepper, and a little more than would be pleasing to our palates as seasoning, but it is almost useless to say to any one, *use no salt*. Farmers who make their own butter, and have sour milk, should remember to divide a part of this refuse material with the hens, for, while pigs make the ham, we cannot have ham and *eggs* without the hens.

There certainly is a great difference in fowls about maturing, and without stating any particular preferences in this article, I will remark that, for early market uses, the Asiatic varieties are the best. Yellow-meated poultry, on account of its rich appearance, always brings the highest price in market; and the reverse of this is the case, in many markets, with eggs. In the case of the meat, the only difference is in the imagination; while, in the case of eggs, imagination is greatly at fault in making choice of white shelled eggs, for the yellow shell is a mark of greater nutriment as really as yellow corn contains more oil than the white-flint variety.—*Cor. Country Gentleman*.

Chicken Salad.

Boil a young chicken until quite tender, mince the white meat fine. Take two or three fresh lettuces and cut the leaves small, reserving the hearts for garnishing. To make the dressing, boil four eggs for twelve minutes, take them out of the shells and put them in cold water until they become thoroughly cold; then rub the yolks smooth with a spoon, and mix them well with three tablespoonfuls of salad oil, or melted butter, a teaspoonful of salt, the same of made mustard, a little pepper and essence of celery; when these are smoothly mixed, add very gradually a wine glass of strong vinegar. Put the lettuce on a dish, lay the minced chicken upon it, and pour the dressing around it; cut the whites of the eggs in rings to garnish the salad, cut each lettuce heart in four, and make a border round the dish, interspersed with beet-root, or hard boiled eggs in quarters.—*Metropolitan Record*.

To tell good eggs, put them in water—if the large ends turn up, they are not fresh. This is an infallible rule to distinguish a good egg from a bad one.

Cucumber Toast.

Select your cucumbers—fresh, crisp, medium size—just such as you would prefer if served up in the usual manner. Pare, or slice up lengthwise, in cuts a quarter of an inch thick. Rinse in cold water, dip each slice singly in flour, and hurry them into the dripping-pan, using for material to fry them in, the gravy in which either beef-steak, veal-cutlets or mutton-chops were cooked; or butter may be used; but be sure to fry briskly until the slices are a light brown on both sides. Have your bread toasted, buttered, or dipped, as you prefer, and close at hand. Slip the slices of cucumber hot from the pan between the slices of toast, and serve at once. Any one following these directions implicitly will find cucumber-toast really good to eat.

To Cure Sheep-Skin with the Wool on.

Take one tablespoonful of alum and two of saltpetre; pulverize and mix well together; then sprinkle the powder on the flesh side of the skin, and lay the two flesh sides together, leaving the wool outside. Then fold up the skins as you can, and hang them in a dry place. In two or three days, as soon as they are dry, take them down and scrape them with a blunt knife till clean and supple. This completes the process, and makes a most excellent saddle cover. Other skins which you desire to cure with the fur on may be treated in the same way.

We can speak in favor of the above recipe. It does all it promises. Such skins make excellent mats for in-doors.—*Farmer's Companion*.

Preserving Okra.

One of the most healthy and nutritious vegetables is the okra, which is raised in such abundance in our climate. We are surprised that so little attention is given to preserving it for use all through the winter, when it can be done so easily and so cheaply. The following recipe for doing it is furnished by a practical and experienced gardener and agriculturist:

“Take a clean barrel, sprinkle salt in the bottom (cover the bottom); then lay down a layer of okra evenly over the surface of the salt; then, on this, another layer of okra, as before, and so on until the barrel is full, or you have put as much as desired, covering the whole, when done, with a thick layer of salt.”

THE SOUTHERN PLANTER AND FARMER.

RICHMOND, VIRGINIA, MARCH, 1868.

TERMS OF SUBSCRIPTION AND ADVERTISING.

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

ADVERTISING.

1 square, 10 lines or less, one insertion,.....\$ 1 00	1/4 page, one year,.....\$ 35 00
1 square of 10 lines for six months, 6 00	1/2 page, six months,..... 35 00
1 square of 10 lines for one year,..... 10 00	1/2 page, one year,..... 60 00
1 page, single insertion,..... 15 00	1 page six months,..... 60 00
1/4 page, six months,..... 20 00	1 page, one year.....100 00

PAYMENTS.

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

Editorial Department,

A very intelligent writer, in the *Native Virginian*, has communicated to that paper two very interesting and well-written articles in relation to the soil, climate, scenery, society and other attractions of Orange county, Virginia, which is a portion of the Piedmont region so graphically described in General Wise's speech which appeared in the November number of the *Southern Planter*. We should be pleased to re-produce them entire did space permit, but as we have it not, we must content ourselves with extracts from them of such parts as are of more general bearing, and such more particularly as relate to the wise and judicious remedial suggestions of the writer with regard to the removal of obstructions which lie on the track of progress.

What he says of the people of Orange in particular may, with equal propriety, be said of the people of Virginia and the South generally:

“Their energies seem relaxed—their enterprise paralyzed. The subversion of their labor system and change of relations, civil, social and political, was a severe shock. The loss of property and means consequent thereon, and derangement of all the business relations of life, seem to have greatly depressed, instead of arousing them to nobler exertions. In their despondency, they forget or overlook the many advantages they yet retain, and sadly neglect the proper means of restoring their wasted fortunes. Is this manly? is it patriotic to fold our arms in apathy, and mourn over the miseries of our situation—whether real or imaginary—when so many inducements, nay necessities, impel us to action? Courage, patriotism, an approving conscience, natural affection—all, demand of us calmly to survey our position, and resolutely to rescue ourselves from the slough of despondency, to rise higher and higher in the scale of manhood, and as Virginia men, to act worthy of our race, and to improve to the uttermost the talents confided to us, and trust to Providence the result of our efforts.”

After a graphic and truthful expose of the varied and abundant resources of Orange county in all that pertains to wealth, refinement and social enjoyment he proceeds, in his second number, “to consider the means proper for the successful development of the great resources of this highly favored locality.”

The writer proceeds:

“Admitting that the difficulties which, at present, embarrass agricultural de-

velopment are great and discouraging, yet they should by no means be regarded as insurmountable by the victims of the unatoneable crime of the 19th century—the subversion of institutions coeval with American civilization—the annihilation of millions of recognized property—the destruction of all labor organization and the happiness of a dependent race—the natural advantages we yet enjoy are great, and the attractions which surround us are too inviting to be neglected. The subject which should now address itself to every considerate and enterprising mind, should be the mode and means by which the rich endowments of nature may be developed and made conducive to our material and social happiness. The power and influence of every people—their moral and intellectual attainments—depend on the success with which they cultivate and improve their physical advantages. To maintain the position which we have reached in the arts of civilization, and to insure our future progress, we must sedulously devote ourselves to material interests—no utopian views must be indulged nor prejudices fostered in the struggle to adapt ourselves to existing circumstances. Time, with its healing influences, may alleviate, but cannot relieve us of the responsibilities now devolved upon us. Action, associated and individual, prompt and vigorous energy of mind, and industry untiring, must be the instruments of success in all noble enterprises. The subject of agricultural development is, at present, a matter of special interest to the owners of the soil—and, as the main-spring which vitalizes the whole machinery of human industry claims the highest consideration of the patriotic statesman. Capital and labor constitute the lubricating element which stimulates industry and harmonizes conflicting pursuits. These are the great desiderata of the times—as hand-maids to agriculture, the foster-mother around which all other industries cluster and draw their sustenance—assuming as indisputable that, without these active agencies, agriculture cannot prosper; and assuming, also, as not less true, the inefficiency of free negro labor, it follows that our fields must be imperfectly cultivated or lie unproductive, until new elements of population are introduced and new systems adopted suited to the altered condition of affairs. The farms of the county, with few exceptions, are too large for profitable husbandry with the present means of their owners. To render them remunerative in proportion to the fertility of the soil, they need to be divided and sub-divided into tracts of easy dimensions, so as to encourage the improvement of them to their highest capacity. Portions of many large estates, now lying unproductive, might be judiciously sold, enabling proprietors to improve their husbandry—the parts producing more than the whole, and at less cost. If there be one fact more clearly demonstrated by recent experience than any other, except, perhaps, the uncertainty of free-negro labor, it is the impracticability, with present means, of profitably conducting farming operations upon the scale of former years. A system of tenantry, such as has hitherto been unknown in the usages of Virginia, in which it should be made mutually the interest of proprietor and tenant to combine amelioration of the soil with increased production—rendering the former progressively auxiliary to the latter, is a mode suggestive of the happiest results. The lands of Orange are beginning to attract the attention of strangers wishing to purchase, as well as those desirous of becoming tenants. But a grave obstacle is met by both in the want of building accommodations. Until this is removed, our surplus lands will not be estimated according to their admitted intrinsic and comparative value. The industrious and intelligent yeomanry of the Valley of Virginia, than whom

there is no more valuable population, would flock to the cultivation of our fields, impressed as they are by the superior advantages here presented, but for the want of suitable dwellings. The best interests of the county, indeed its social welfare, appeal to its patriotic proprietors to address themselves actively to this work. Material abounds, and the happiest results would follow—increased value of their estates—immigration, capital, and intelligent industry—all combining to promote their permanent prosperity. A majority of them, by strict economy and judicious arrangement, may, in a brief space, add each, from one to ten in number, to the active producing population of the county, and thus augment individual and national wealth.

“In conclusion, without intending to discourage any portion of our beloved commonwealth, may I not ask wherein consists the superiority over Orange of other counties in which sales of land are often made at from \$70 to \$100 per acre? Is her climate less salubrious—her fountains less pure—her soil less fertile, her scenery less beautiful, her men less noble or her women less lovely? Truth and candor forbid other than a negative response—modesty—a claim to superiority. Then let the miner come and explore our mineral resources—the capitalist seeking investment and the enterprising immigrant—let the weary merchant, needing repose and pining for pure and invigorating air, come and find a happy retreat. A home and a welcome there will be for all, and when industry and art shall have accomplished half that nature has done, the good county of Orange will become, what Mr. Jefferson said the Architect of the Universe designed this Piedmont region to be, ‘the home of a happy people.’

“AGRICOLA.”

Harrowing Wheat in the Spring.

We have met with but few farmers who do not believe in the theory of harrowing their wheat-fields in the spring, yet with very few who have entertained such an assured faith in the verity of the theory as to have subjected it to the test of truth in their own practice.

This month will afford, to every wheat-grower, an opportunity for making a fair experiment.

We hope every one will embrace it, and will at least harrow two or three beds in his field, leaving parallel with them an equal number for comparison, of like condition in all respects, without harrowing—note carefully the time, condition of the ground, state of the weather, and other circumstances that might be supposed to have a bearing on the result, and report through the *Planter and Farmer*, when the crop matures, whether or no the advantages of harrowing, as demonstrated by the experiment, are such as to recommend the practice to general adoption among our farmers.

We had well-nigh forgotten what we have now only space to do very briefly, but emphatically, namely: to express our thanks for the kindness and promptness with which the Proprietors of the *Maryland Farmer*, Messrs. S. Sands Mills & Co., have furnished us with the means of appropriately illustrating our article on the Percheron Norman Horse.

Correspondence of Southern Planter and Farmer.

The following communication on the cultivation of the Ground Pea will be found seasonable and of great practical value to persons desiring instruction in the mode of treating this crop, the profit of which is beginning to attract the attention of many of our readers in those sections of the State best adapted to its growth.

We have referred to this crop in another article in this issue, but the present one is more full, and explicit in its directions, and in addition prescribes the mode of harvesting, which the other omits.—ED. SO. PLANTER AND FARMER.

CULTIVATION AND MANAGEMENT OF THE PEA NUT.

To Charles B. Williams, Editor, &c.

In accordance with the promise which I gave you this morning to furnish an article on the cultivation of the Ground Pea, I send you the enclosed, obtained from a gentleman of Surry county, who informed me that he had cultivated the Ground Pea for many years past. He informed me that he had nine hundred bushels for sale, the product of fourteen acres of ordinary land, for which he had refused, I think, \$2.45 per bushel. Besides this product, he said that he had *half* fattened a large stock of hogs upon the aforesaid fourteen acres after gathering the crop.

PREPARATION OF THE LAND.

Fallow the ground very shallow, not more than three or four inches deep. If fallowed in the Fall, re-plough in the Spring. Harrow the land very fine. Lay off the rows with a single plough three and a half feet apart. Scatter Peruvian Guano or Super Phosphate of lime (the latter greatly preferred) along these trenches at the rate of 150 or 200 pounds to the acre. Throw two furrows with a single plough on these trenches making a small ridge. Drag down these ridges with a board or block fixed under a plough beam (such as they use in covering cotton in the South,) with a drag tooth or pin behind, for opening the seed furrow. Drop two kernels, the outer shell being removed, in a place along this furrow about eighteen inches or two feet apart, and cover lightly with the foot. They should not be covered more than from one to two inches deep. The planting should be early in May, and none but the soundest and plumpest kernels used, as it is very important to get a good stand.

CULTIVATION.

As soon as the plants are well up and the grass begins to spring, run the bar of the single or one horse plough as close and as shallow as you can to the plants, and follow with the weeding hoes, killing the grass and cutting down the ridge. As soon as the grass springs, again throw the earth back to the plants as we throw it to corn, still running shallow and follow a second time with the hoes, clearing away the grass and putting a little earth to the plants. When the vines have attained some length and are blooming, run another furrow, still shallow, further off from the plants, taking care not to cover the vines, and let the hoes follow for the last working, making a sort of broad or flat hill around each plant.

HARVESTING THE CROP.

The gathering should be delayed as long as the frost will permit, as the tubers continue to grow and fill until the winter approaches. Run a furrow on each side of the row with the bar to the plants as close as you can without

breaking off the outer tubers. A plough made for the purpose, with the bar and share to undermine the plants is best. Then follow with wide four prong hoes, a blow to each hill, prizing up the plants, will be sufficient. Let other hands follow raising up the plants and shaking off the earth, dropping them again just where and as they grew, taking care not to turn them over, as the peas would become tangled with the vines and consume more time in separating them. If the weather is propitious they may remain a day or two, or several days in this position, but if not they must be gathered up and put in little shocks or stacks. For this operation, provide poles or sticks some five or six feet long and drive or stick them in the ground at convenient distances. Gather up the vines with the tubers attached and make little shocks around these poles, capping off each shock with straw or coarse hay provided for the purpose. Let these shocks remain a week or ten days, according to the weather, until the peas are nearly dry. Then gather into hampers or baskets, pulling off the peas from the vines in the field, or hauling the vines to the barn and spread the peas on the barn floor, stirring them occasionally to prevent their moulding. Running them through a good fan mill when dry, will greatly aid in cleaning and separating the empty hulls. On good land, (and the best is what is commonly called a medium soil, neither very stiff or very sandy,) in a good season, from seventy-five to one hundred bushels may be made to the acre. G.

P. S. The gentleman who kindly communicated to me the above mode of cultivating the ground pea, and whose name I withhold simply because I have no authority for using it, expressly insisted that the land should be fallowed very shallow. "If it is ploughed deep," said he, "the pea will not begin to form until it reaches the hard surface below, or at the bottom of the furrow where it is too far from the influence of the sun." He added "that the haulm of the pea will generally cure well, under the process of shocking, if the weather be fair, and when so cured makes very valuable provender."

HINTS ON THE CULTIVATION OF TOBACCO.

We had occasion to address Mr. Dabney, on the occasion of requesting from him, for one of our subscribers, some tobacco seed of a fine variety for shipping purposes—the Johnson Green—which he had successfully cultivated for some time. We at the same time requested him to favor us with estimates, founded on his own practice and experience, in regard to pitching the crop, &c. We received from him in reply the following interesting letter:

Dear Sir,—I thank you heartily for the number of your beautiful periodical; you were kind enough to send me. I have not had time to read it as yet, but my family are quite delighted with it, and I can say at least, that its appearance does great credit to the spirit and liberality of the publishers, and to the workmanship of my old friend and comrade, Rady.

I have not forgotten your request and my promise about the tobacco seed. I shall send by this chance to you, every seed I can spare and regret that I did not know in time, that any friend wanted seed, that I might have saved enough. If your friend is unacquainted with the variety, you should caution him not to attempt to make fancy tobacco of it—Not to plant too early, the 15th or 20th of June will be early enough; to put it on good land, with as much carbon in it as possible, and some soda (I use common salt); to work it quick; to prime low; take off only the baby leaves; to top to eight leaves; to let it get fully ripe; to scaffold in the field in fine weather, and when it is put in the house, to

fire enough to keep it curing, (and no more). I think I can assure him of a satisfactory crop of heavy stemming leaves—at least one ounce to the leaf.

You ask me for estimates for pitching a tobacco crop. It is hard to make any general estimates—each case must stand by itself. The crop is a most precarious one. My neighbor Mr. Joseph Talley, the best planter I ever knew—now over seventy years of age—will tell you to-day, that in his long experience, he never made but one *good* crop of tobacco. Many of the vicissitudes attending the crop, may be obviated by labor. For instance, if the beds don't flourish, they may be dressed and manured if there is anybody to do it. If plants are late, and seasons scarce, the crop might be pitched, if we had the people to do it. If the season is rainy, and grass constantly growing again, one must have hands to repeat the tillage. If worms come in a glut, as was again the case last year, you must redouble your labor, or lose your investment. As a compromise, I was in the habit of pitching for slave labor for some twenty odd years, about six thousand hills to the hand, all on old land. Last year, venturing on the superiority of white labor in part—my two sons, of sixteen and eighteen years of age, being two of the hands—two negro men the others, we set out eleven acres for tobacco, say fifty thousand hills. About one acre was not planted on account of the incessant wet—leaving say eleven thousand to the hand. We could never have managed it without help. Of a good season, we might have done so. But last year was the worst season for wet and insect, I ever knew. Weeding was to be constantly repeated—worming and suckering was a perpetual necessity. We have now white (Virginian) labor entirely—my two sons and two neighbors—I class them number one. I shall probably be a half hand in topping &c.; And we shall probably attempt about fifty thousand hills again. I asked my oldest son to-day what he would say in reply to your enquiry. His answer was, that he could work six acres of tobacco, but not worm and sucker it.

In the present state of the colored population, I feel quite secure in estimating on their help as day laborers, if a pinch should come. And this has appeared to me, a great potentiality, so to speak, of the present times. The negro is very good natured, fond of novelty and variety; and is quite pleased to do a week or so of work for any planter he likes, and will do it well and cheerfully. But the difficulty is, that such tobacco as our people commonly produce, does not pay on any sized crop. If one has two thousand five hundred pounds of leaf tobacco to the hand, at eight or nine cents, which is about the highest average of quantity and price which can be made, after he has paid his manure and labor bills, his rent and taxes, he has too little left. The point is to increase the yield and quality, not the average of the crop. I am convinced that some old charcoal beds which were in our last year's field, yielded tobacco plants worth ten cents a plant. Five thousand to the hand of such would do.

I fear the great uncertainty of tobacco tillage for us, results from the doubt as to whether the market can be strained up to remunerating prices. Tobacco here can't be raised any cheaper per pound, than can cotton in the region suited to that. There is a remarkable approximation in the cost of the production of each in its appropriate latitude. Foreign consumers, may be induced to pay twenty cents for the best possible article. Our folks should be stimulated to produce such, not to expand manure and labor over great surfaces.

You may conjecture from this gossip that I don't consider our common pursuit, theoretically with you, practically with me, as a science, in which either mathe-

matical or moral certainty could be counted on, any more than they were by the learned counsel, in the late Philips trial. Our occupation is one of "faith and hope," if not of charity. We must accept its character, and "try and try again."

Very truly yours,

C. W. DABNEY.

Aldinghane, January 25, 1868.

The following letter was not intended for publication by the writer, but it breathes such a spirit of frank and straight-forward honesty that we hope he will excuse the liberty we are taking in laying it before our readers. It is true, he confesses to have borne a part, which we can never approve, in the late war of aggression upon the rights of the South, but it is due to him to say, that such was not the character of the war as he viewed it. He acted under the illusion that he was *defending* the Union. But, the illusion is dispelled, and he must now see he was only *destroying* it—we freely acquit him of any such intention and award him full credit for the manly and independent stand he is now taking to countervail the revolutionary designs of the present reckless, Radical Congress. But let us cast all this behind us: In the name of Virginia and the South we say to our correspondent and to as many more like him, as may be inclined to share with us, our goodly heritage, "come thou with us and we will do thee good," offering them in advance the hearty welcome of a generous, magnanimous and hospitable people.—ED. SO. PLANTER AND FARMER.

Mr. Editor,—I recently had the pleasure of perusing the January number of your *Southern Planter and Farmer*. Please send me the February number, current volume.

I contemplate migrating South some time before the next winter compels us here to burrow. From what I have learned of the Southern States—that is very little—I would like to locate in the "Old Dominion," provided I can get a situation that would suit me. I am a "full blood" Con. Yankee farmer; have six sons—all minors—the eldest went to the war while in his 16th year; went from Chattanooga with General Sherman on his campaign through the Southern States, and wants to return to take up his abode somewhere in "Dixie." I could invest some five or six thousand dollars in "green backs," for real estate, and have a few thousand dollars worth of the very best farm implements, besides other "traps." We are *compelled* here to labor for a living, and should endeavor to do the same were we in a more genial climate like yours. I have read the remarks of Mr. Guyman of the *New York World*, which appears in the weekly edition of that journal, January 29th, 1868, relating to the "pasture lands of the South." Those lands appear to be remote from markets and thoroughfares. There are many here who would like to remove South, but they say they would not go now on account of the state of politics. If there is any difference as to *State* rights or individual rights, within the jurisdiction of the present Radical Congress, I confess that I have not the intelligence to see it. What are *States*, or *State rights*, in a dominion controlled by an out-law Congress, or rather Legislature, who ignore the the constitution or *compact* of States? If we *must* have Radical law makers, I think the African or negro will be likely to do less injury than the lighter skinned man. In looking over the proceedings of the "constitutional convention" at your place, Richmond, it appears to me that Underwood, one of "Uncle Sam's" judges, is just about equal with the "colored" delegates, except he has the advantage of a "high" position.

I have strayed from my subject, but will add that we are expecting to defeat the Radicals again the next election in this State.

You may be able to discover from what I have said of myself in the foregoing, about what would be a suitable situation or location for me, if you should know of any such in your region. Please inform me if you know of any good "opening," a farm, or a part of one, of 100 or 200 acres, from some of the large farms would suit; or, please hand this to some of your agricultural acquaintances, who would do me the favor of responding to my inquiry.

Very respectfully,

Richford, Tioga county, N. Y., February 9th, 1868.

New Publications.

A NEW AGRICULTURAL JOURNAL. We invite attention to the advertisement of S. Bassett French, Esq., who proposes to issue a new monthly journal, to be entitled, **THE FARMER'S GAZETTE AND INDUSTRIAL INDEX**, which will be devoted to the agricultural and industrial development of the South. We hope, as a co-laborer in so good a cause, he will not fail to reap a reward commensurate with the zeal and ability with which it will doubtless be conducted.

MOORE'S RURAL NEW YORKER. We refer the reader to the advertisement of Mr. Moore. We have elsewhere, in this issue, referred to the high character of this paper, but omitted to notice the fact that it has been considerably enlarged and is beautifully illustrated. Subscription price, \$3 per annum.

THE SOUTHERN JOURNAL OF EDUCATION. Published monthly at Shelbyville, Ky, by John T. Hearn, at \$1 per annum. It is neatly printed on fine white paper, 16 pages quarto, and treats of the following subjects in the February number: Scepticism in Religion; Asylum for Useless Young Men; A Wonderful Invention; Public Schools of Louisville, by Prof. G. A. Chase; A Remarkable Deaf Mute, by Joe, the Jersey Mute; Writing for the Press; Talleyrand; Choosing a Profession; A Curious Manuscript; The Poet O'Hara; Vaucanson; The Human Voice; The Burning Star; Literary Notices.

SOUTHERN SOCIETY. A beautiful family literary weekly, published at \$4 per annum. 8 pp. quarto. Conducted by Eugene L. Didier, Wm. J. McClellan, and Porter Morse.

Address, "Southern Society," 226 W. Baltimore street, Baltimore.

LONDON QUARTERLY REVIEW. January, 1868.

CONTENTS—1. Sir Walter Scott; 2. The Queen in the Islands and the Highlands; 3. Private Confession in the Church of England; 4. Guizot's Memoirs; 5. The British Museum; 6. Longevity and Centenarianism; 7. Phœnicia and Greece; 8. Church Progress; 9. What Shall We Do for Ireland?

WESTMINSTER REVIEW. January, 1868.

CONTENTS—1. Dangers of Democracy; 2. Physiological Psychology; 3. Two Temporal Powers; 4. The Church in Scotland; 5. Extradition; 6. The Origin of Electricity; 7. Indian Worthies; 8. The Abyssinian Difficulty; 9. The Land Tenures of British India; Note to Article III.; Contemporary Literature, &c.

The above reprints of the London and Westminster Quarterlies are regularly issued by the Leonard Scott Publishing Company, 140 Fulton street, between Broadway and Nassau, New York. Price each, \$4 a year.

THE NEW ECLECTIC. A monthly Magazine of select literature, pp. 96, for

March, published at New York and Baltimore at \$4 a year, by Lawrence Turnbull and Fridge Murdoch, Editors and Proprietors, 49 Lexington street, Baltimore.

CONTENTS.—I. Household Service; II. The Victim; III. The Woman's Kingdom; IV. Anarchy and Authority; V. Robin and Maggie; VI. The Recreative Use of Literature; VII. Fineas Fevin, the Irish Member; VIII. Ecce Homo; IX. The Culture and Mode of Development of the Æsthetic Faculty; X., XI., XII. and XIII. Reviews, Recent Publications, Miscellany and Editorial.

Embracing "the whole field of American, English and Continental Periodical literature" within the scope of their selections, and "after a careful review, republishing only such articles as bear evidence of the greatest ability, purest principle, and adaptiveness to readers of good taste and cultivation." We think our readers need ask no further guarantee than is afforded them in the already established character of this valuable Magazine.

A BRIEF MEMOIR OF VIRGINIA.—We are indebted to the courtesy of General G. Tochman for a pamphlet of 16 pages, prepared by him as European Agent of the Va. Board of Immigration for circulation in Great Britain and the United States. It is entitled VIRGINIA: A Brief Memoir for the information of Europeans desirous of emigrating to the New World. It has been translated into the German Language for circulation in Germany. The society, geographical position, soil, climate and productions of Virginia, are described in an able and impressive manner, which cannot fail to excite a most salutary and persuasive influence in turning the current of immigration towards Virginia, where the intelligent and thrifty husbandman, mechanic, artisan, miner and manufacturer, will find such unrivalled social advantages for the location of their families, and for the accumulation of wealth in their industrial occupations.

Commercial Report.

RICHMOND, VA., *March 1st*, 1868.

Although we have still the habiliments of winter about us, we can at least look forward to its speedy departure, and the return of that life-giving season so full of hope and promise to those who have, for three long months, been watching for its coming.

With this month begins the more active business of the year, as well with the merchant as the farmer. The winter-locked wheels of trade are beginning to thaw, and, consequently, to revolve; merchants who have looked gloomy and disconsolate for months past now begin to frequent the Exchange with a bustling air, which means business, and the activity evinced thus early, gives promise of better results than were achieved during last season.

It is gratifying to know that our friends in the country. (the tillers of the soil, by whom all other branches of industry are in a great measure supported,) notwithstanding the many difficulties and discouragements by which they are surrounded, are making preparations for a busy year's work. They seem determined, regardless of new reconstruction and destruction measures and conventions, to make the *soil*, which, at least, is yet free from Radical rule, respond, with a generous yield, to the labor of *their own hands*, and thus will they teach

their Northern brethren that a people who could, within two years after a most cruel and destructive war, waged in their very midst, throw into the markets of the world a crop of cotton and of tobacco equal to half the yield in the halcyon days of peace and prosperity, can and will, if only let alone, *practically* reconstruct themselves.

For the benefit of our friends who live contiguous to the line of the Richmond and Danville Railroad, we will state that this company have provided especially for the prompt transportation of all products of the farm, dairy, garden and orchard, at very low rates, so that trucking, market-gardening and fruit culture, may now be carried on profitably, even at great distances from the cities, with the assurance of a good market within easy reach. Let our lady friends throughout the country take hold of this, and make it a valuable adjunct to every farm adjacent to the railroad.

Our Tobacco market is much more active now than at the same period last year, and prices, especially for Lugs and Low Grade Leaf, are fully fifty per cent. higher, as will be seen by the following comparison of quotations:

<i>Average Prices for March, 1867.</i>		<i>March, 1868.</i>
Common Lugs, light weights,	\$ 3 00@ \$ 4 00	\$ 4 50@ \$ 5 00
Common Lugs, heavy weights,	3 50@ 4 50	6 00@ 6 50
Good Lugs,	5 00@ 6 50	7 50@ 9 00
Bright Lugs,	8 00@ 20 00	12 00@ 15 00
Fancy Lugs,	22 00@ 40 00	20 00@ 35 00
LEAF.		
Common Leaf,	\$ 7 25@ \$ 9 00	\$ 7 50@ \$ 8 50
Medium to Good,	10 25@ 12 00	11 00@ 14 00
Good Stemming,	13 00@ 15 75	14 00@ 16 00
Good Shipping, (no Fine)	14 00@ 16 00	14 00@ 18 00
Good Manufacturing,	16 00@ 24 00	13 00@ 20 00
Bright Wrappers,	25 00@ 85 00	30 00@ 50 00
No Fancy offering.		

The Inspections in the State since September 30th, 1867, and Stock on hand, as extracted from Mr. P. H. Gibson's Circular, sum up as follows:

Richmond,	4,109 Hds.
Petersburg,	1,944 "
Farmville,	54 "
Lynchburg,	567 "

Total to March 1, 6,674

INSPECTIONS FOR MONTH OF FEBRUARY.

Richmond,	1,904 Hds.
Petersburg,	520 "
Farmville,	18 "
Lynchburg,	227 "

2,669

STOCK IN WAREHOUSES IN THE STATE MARCH 1ST, 1868:

	<i>Inspected.</i>	<i>For Inspection.</i>
Richmond,	1,490	134
Petersburg,	422	192
Farmville,	20	19
Lynchburg,	170	26
Total,	2,102	371
Total Stock,		2,473 Hds.

WHEAT.

The offerings are very small, and indications are that there remains but a limited quantity of last year's crop to come forward. We quote Prime Red, \$2 55; Prime White, \$2 70. As spring advances, we should be much pleased to have reports from friends in different parts of the country, in regard to the growing crop, on which so much depends.

CORN.—New White, \$1 05, showing a decline. OATS, 70c; RYE, \$1 50.