#### THE

# Southern Planter

DEVOTED TO

#### AGRICULTURE, HORTICULTURE, LIVE STOCK AND THE HOUSEHOLD.

PROPRIETOR.

EDITOR.

W. C. JACKSON, ADVERTISING AGENT.		
44th Year.	APRIL, 1883.	No. 4:
	CONTENTS:	
Farmers and Farming in	Virginia in the Olden Time	159
Grane Culture in Southsid	le Virginia	163
Reply to Mr. Stacy		164
Some Practical Thoughts.		
Orchard, Nursery, Fruits.		166
Renovating Poor Land		
What Crops to Grow and	how to Grow Them	
Cure of Chicken Cholera.		170
Another Remedy.	***************************************	170
Rotation	*****	171
Upland Rice		
"Raised a Farmer's Daug	ghter, now a Farmer's Wife, but not I	nsane vet '' 173
Ensilage	~	174
The First Devon Cattle in	Virginia	175
Crop Mortgages	o as a Food-Producing Plant	177
Value of the Sweet Potat	o as a Food-Producing Plant	178
Systematic Farming		179
Richmond, Virginia		182
The Good Husbandman		
Agricultural Items		
Japan Clover	***************************************	185
Farming in the South	······································	187
The Perils of Work	****** ******* - : ****** ****** ***** **** **** **** ****	188
Agricultural Fairs as a Sc	hool	189
Extensive Farming—Exp	eriments with Tobacco in Virginia	191
Japan Clover		192
Household Recipes		194
Diversified Rural Industr	ies	195
A New Plan for Keeping	Roads	197
Sir J. B. Lawes' Experim	ent	- ····· <b>-</b> ···· 197
American Fruit for Engla	nd	198
Albemarle Farmers' Club	Meeting	198
Enropris.		

EDITORIAL:

T. W. ORMOND,

W. C. KNIGHT,

Law and Farming: Incubators Again; Piedmont Agricultural Society..... 199-206

Editorial Notes:

Richmond: J. W. Fergusson & Son, Printers.

## RICHMOND FARM-IMPLEMENT HOUSE,

Office, 1422

-::0::-



Main St.

-VIRGINIA AGENT FOR-

McCORMICK'S REAPERS, MOWERS AND (CORD) BINDERS.

DEERE WHEEL WALKING AND RIDING CULTIVATORS.

WALTER A. WOOD REAPERS, MOWERS AND CORD BINDERS.

FRICK & CO'S CELEBRATED "ECLIPSE" ENGINES AND THRESHERS.

"GRAY" AND "EMPIRE" THRESHERS AND SEPARATORS.

"THOMAS" WHEEL HAY RAKES AND GLEANERS.

THE BEST LINE OF AGENCIES IN AMERICA.

Don't fail to examine stock before buying.



ENSILAGE AND FODDER CUTTERS, CORN SHELLERS OF ALL KINDS, SOUTH BEND CHILLED PLOWS, DIXIE PLOWS, STEAM ENGINES.

ASHTON STARKE,

Office: 1422 Main Street.

[jy]

RICHMOND, Va.



ELASTIC TRUSS
Has a Pad differing from all others,
is cupshape, with Self-Adjusting
Ball in center, adaptst itself to all
positions of the body, while the
Ball in the cup prosess back the
Intoctines just na presea would

layand night, and a radical curs certain.

Ind cheap. Sent by mail. Circulars free.

EGGLESTON TRUSS CO., Chicago. III.

POLAND-CHINA PIGS.

A choice lot just farrowed for which I am now booking orders. Prices reasonable. J. B. GRAY, Fredericksburg, Va. mar 1-1y

#### H. A. S. HAMILTON,

Fishersville, Augusta County, Va.,

### Southdown Sheep

My flock took seven premiums at Virginia State Fair in 1881. Am prepared to furnish buck of any age at reasonable prices.

CHEAPEST BIBLES Ever Furnished Agents. tra features. Both Versions New Testament AGENTS WANTED FORSHEE & MCMACKIN, Cincinnati, O. AGENTS WANTED

## SOUTHERN PLANTER.

DEVOTED TO

Agriculture, Horticulture, Live Stock and the Household.

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

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

44TH YEAR.

RICHMOND, APRIL, 1883.

No. 4.

#### FARMERS AND FARMING IN VIRGINIA IN THE OLDEN TIME.

#### No. 9.

1. Letter from Gen. J. H. Cocke to the Secretary of the Albemarle Agricultural Society on the subject of Hessian Fly.

2. Report to same Society by FRANK CARR, Esq., on the subject of agricultural improvement.

Bremo, October, 1817.

To Peter Minor, Esq., Secretary the Albemarle Agricultural Society:

Sir,—Believing the following facts to be new in the natural history of the Hessian fly, I deem them worthy to be communicated to the Society:

1st. That this destructive insect deposits its eggs on the blades of the wheat, indifferently at from half an inch to three inches from the main stalk or central shoot;

2nd. That they remain upon the blade, in the egg state, from 5 to 7 days at least;

3rd. And that they are hatched into the worm or maggot on the blade.

That the egg is deposited on the leaf or blade of the wheat is discoverable by close examination to the naked eye; but may

be put out of all dispute, to the dullest sight by the aid of a magnifying glass. The upper surface of a blade of wheat is formed into alternate edges and furrows running longitudinally, and the eggs are so sunk in the furrows, that they will not be disturbed by drawing the blade thro' the finger and thumb under a considerable pressure. The shape of the egg is cylindrical, rounded at the ends and at first in color and appearance resembles a piece of amber, but as it approaches to hatching assumes a redder cast.

On the 9th of October I first discovered the eggs on a piece of Lawlor, or fly proof wheat, which had been sown as early as the 22d September. The plants, at that time, generally had three leaves and there seemed to be a manifest preference in the flies to place their eggs on the second or middle blade, but they were found indiscriminately scattered upon the surface of this leaf from half an inch to three inches from its point of contact with the central shoot. In several instances as many as forty eggs were counted by the aid of a glass on a single blade.

Particular eggs which were identified from day to day until they hatched, were found to remain upon the leaf—the shortest period of time five days, the longest seven. How long they had been deposited when they were first observed, is uncertain, but it is presumed some days, as the flies appeared in numbers out of all proportion, small to the vast multitude of eggs. In two instances only were the eggs discovered at the instant of their being laid by the flies, and in both of these cases the plants were destroyed in removing them to the house to subject them to closer examination, and thus the attempt was defeated to fix the period more definitely that the egg remains exposed on the leaf.

As soon as the eggs hatch, the worms commence their journey down the blade to its point of contact with the main stalk, and then down between the boot of the embrio stalk which it envelopes to the union of the boot and stalk at the crown of the plant. Some of the worms were detected in the act of moving down the blade—but for the most part, after the disappearance of the eggs from the blade, by stripping down the boot, the worms were found in a state so minute as scarcely to be discoverable to the naked eye, lodged near the root, just at that part of the plant which is the seat of all their mischief and where they are found in the subsequent crysalis state.

When they have once placed themselves in this situation they are clearly beyond the reach of all remedies—but the fact being established that they remain from 5 to 7 days at least on the

blades not the liwheat seems to hold out isome prospecte that means may be resorted to which will at least dimbrish of subtracting, to watch the progress of the flies and as soon as they are sound to have deposited their eggs to graze the openion off?

There are many difficulties which present themselves no carrying this suggestion into practice upon a larger scale, but against so great an evil a partial remedy is bettern than a doctiff successful it may be found capable of extension sufficient for the object.

Pouncipenesse intropries to the plants of the point of th

bus Dear Sir, In compliance with the recommendate of the Agricultural Society of Albertaile, that each member of the Society be required to make a report of the Society be required to make a report of the society be required to make a report of the practices in Agricultural and Ruffl Exchange on the reduction of the submit the sollowing to noity research on reduction.

I am with respects sated of the total of the track of the

cleared about thirty acres of land, my whole attention Raying the desired about thirty acres of land, my whole attention Raying the provided will continue of and will continue of any my many and will continue of any my many allows in the continue of a the larger to grub not at all, to belt a considerable number of the larger

trees, and to permit what is cut down to lie on the ground thro' the period which elapses between that and the succeeding spring, allowing sufficient time to clear the land for a crop of corn or tobacco, as its fertility nay justify. I endeavour to clear as much as possible during the summer time while the leaves are on the trees.

"If any, what proportion of worn out land?"—Of the 30 or 40 acres which I have stated as having been cleared 20 years when I obtained possession, perhaps there may be two acres in various parts of it worn out.

"Number of hands, horses, and oxen employed?"—During the last year there were three men hands employed—at present I have six hands, five men and one woman. As the last year was given entirely to clearing land, there were no work beasts of any kind;

at present I have one yoke of oxen and two horses.

"Quantity of plaister, &c.?"—On the open land in which I sowed two bushels of clover seed last spring there were at that time scattered two ton of plaister. Of this quantity, from the inexperience of the hands engaged in it, there were 1300 weight put upon about 5 acres. A comparison between that and the remainder of the field on which the plaister was applied more sparingly furnishes the only grounds of judging its effects, and I can at this time perceive no difference in the appearance of the clover on the several portions of the field of equal fertility. On the same field I have this spring put another ton of plaister.

"Number and description of wheel carriages?"—These consist of

one ox and one horse cart.

"Number of cattle, sheep, and hogs?"—Sheep none, cattle, the two oxen already mentioned, one cow and three yearlings, these have only very lately been procured, and therefore I have had no opportunity of giving any answer to the last question of the committee. I have fourteen hogs."

[Read May 12, 1818.]

One of the best modes of watering stock in winter is to have a cistern in one corner of the barn basement. If enclosed on all sides with a double wall it will rarely freeze in the coldest winters. The water that falls on a 30x40 feet barn will supply ten herd of stock through the winter.

As a rule new fruits originated from seed, grown in seasons very unfavorable to their growth, are inferior. Our best grapes, apples and other fruits come from seeds grown when the fruit attained its greatest excellence.

#### GRAPE CULTURE IN SOUTHSIDE VIRGINIA.

Editor of Southern Planter:

When I get astride of my hobby, I feel that I am enthusiastic, and apt to use language that will be deemed extravagant by those who have thought in the same channel. The question is, What shall we do for the renovation of our good old State?—at least that portion of it in which you and I were reared, where rest the bones of our ancestors; where once stood the "log-cabin school-house," around which we played the classic game of hop-scotch, and in which we blundered over omnis gallia. What shall we do for the Southside, to restore, if not her youth, her wealth, strength and beauty? Has it never occurred to you how fatuous it was to expect sovereigns to pull us through the old deep and muddy ruts, as our slaves did, in what are regarded by some as the good old times? Then you could crack your whip and drive through many difficulties, and in case of emergency could sell the team.

"But, I am not of those who grieve, For the good old days of Adam and Eve."

It would be expecting too much of the new sovereign to suppose, that just as the burdens of government are thrown on his shoulders, and while he is called upon in a large measure to adjust and readjust matters of grave import to the State, that he should so devote himself to agriculture as to make the old staple crops of slavery times a paying business. What though his shoulders be Atlantean, and his intellect Websterian, still I think the burden is too heavy, and in this particular instance first-class labor and first-class statesmanship are incompatible.

There is a remedy at hand—a nostrum, if you will—a sort of panacea for the many ills that our section is heir to. Of course I mean my hobby, the grape vine. The good old book says, "Go work in my vineyard." I would say to Southside Virginians, "go work in your vineyards."

From several years' observation and experience, I am entirely satisfied that the Concord grape is the most profitable crop we can make, and the most certain of all our fruits. It is so late blooming that the spring frosts rarely affect it, and a vine at the age of three years from the rooted slip is an abundant bearer, and at that age, if it has been properly managed, each vine is worth the average price of an acre of land as sold at auction; worth it annually. My vines, the last year, with no further cultivation than one solitary ploughing, made me one gallon of pure juice to each vine. Then, let us get out of the old rut.

Abandon the culture of a nondescript tobacco, which requires the services of a newly made sovereign all the year round, and when made and shipped to market nobody wants, except at a very low price. Seed more wheat, more oats and more grass. Raise more cattle and of betong of the price of th

dollar and fifty cents. object

My experience in wine-making is limited, but I have a notion that
the juice from the ripe, freshly-gathered grape requires no sugar; that

from the fermented hulls and seeds does.

R. I. H. HATCHETT.

ip and drive through

#### REPLY TO MR. STACY.

Mr. Stacy, that I had attempted to decry the land in Amelia county. It hought my reply in your journal to this charge, when first made, was sufficient to satisfy any reasonable person, or any one not determined not to be convinced. I will repeat the substance of my reply, as Mr. Stacy may not have seen it, and also for the information of others who may not have seen it, who have seen Mr. Stacy's article.

I was writing to show that the wheat crop in Virginia was not a profitable one, and said that on good land it was frequently a failure, and instanced Captain Thomas Wily, in Amelia, having hauled from a field, on which he had seeded forty bushels of wheat, only two wagon loads of wheat, and Mr. John Selden, on Shirley, Charles City, having made scarcely enough to seed the land. In Captain Wily's case I stated that the land was good—land from which a tobacco crop had just been removed. This is all I said about Amelia lands. This is not decrying them. Why should I wish to do so, since my children own a tract of land in the county, which we wish to sell? As to Charles City, was the reference to the crop on Shirley, one year, any effort or tendency to decry Charles City lands? In the article which Mr. Stacy complains of, I said that our Southside counties are not generally adapted to wheat, and I repeat it now.

Respectfully,

TH. POLLARD

February 24, 1883.

#### SOME PRACTICAL THOUGHTS.

Editor of the Southern Planter:

From the frequent and excessive fall of rain and snow within the last six months, the farmer may anticipate a dry summer this season. I think, through your paper, that you may be the means of doing them much good, giving them some hints in the way of advice or suggestions. You are so well posted, and know so well what to say, that I feel it useless for me to write.

I should first urge them to "pitch" their crops (corn and all summer and fall crops) upon their lands, anticipating a drought next suumer, advising them also to replow, and the thorough ordering of all lands that were broken up last fall. The Piedmont lands run together after a winter of hard rains and deep snows, and if they not be treated in this way, become as hard as a brick when the hot sun of summer strikes them. I have always considered the replowing and ordering of it equal to a top-dressing of manure, besides making the land stand a drought much better; you can also work the land with half the labor to the horse in cultivating the crop.

Give them your views about sowing grass seed, the time of sowing, the seed to be put in with a harrow on wheat land, &c., &c., all of which you know so well.

There is another item that is much neglected—the pruning of apple orchards. To allow the sun and air to come in freely is all important to the gathering of more, better and prettier fruit, which will command double the price in a city market. All of the interlapping limbs, interfering with each other, should be taken out; if they are not, you will have small, insipid fruit.

The winesap apple (which is the apple with us) from young trees obtain a good size, but being a vigorous grower, as well as bearer, the old trees furnish small and indifferent fruit, unless they are pruned every year. On a visit to Albemarle last summer, I was struck with the sad neglect of these trees; they were loaded down with apples about the size of walnuts—tasteless, and too small to command a ready sale in market. Nothing pays better on the farm than this work at the proper time, and all parties that will avail themselves of the suggestions contained in an article prepared by you upon these subjects will freely admit, at the end of the year, that this alone is worth more than their subscription to the *Planter*.

Very respectfully,

J. W. Woods.

#### ORCHARD, NURSERY, FRUITS.

[For the Southern Planter.]

Many of the operations that should have been performed last month will hold good for the present, and a little careful thought will suggest others which we may fail to mention.

Planting done now will be in time, and trees are pretty sure to live in a moderate climate if properly planted, and protected around the roots with a good mulch.

Seeds of trees for nursery stock may be planted now. Chestnuts, walnuts, acorns, peach stones, etc., are much more likely to germinate. Seedlings raised last spring will need mulching, and, if possible, be protected from cold winds by means of evergreen boughs or board fences.

When trees are not planted at once in the orchards, it is customary to lift them from the nursery rows and heel them in. When managed in this way, they do not start until two or three weeks after those left in the nursery. There is danger, however, that the work will not be properly done, and many writers do not recommend it; but if the trees are carefully lifted, and no air-holes left around the roots when set in the trenches, the process is a safe one. This remark applies to the winter months.

Ripening being the first step towards decay, the more this process is retarded, the longer, of necessity, the fruit remains in a sound condition. The fruit-room should be opened whenever the temperature will permit, or when it is not warmer outside than in.

Pears that have been carefully preserved will bring good prices now if neatly put up. The best method of marketing choice specimens is to pack in shallow boxes containing a single layer of fruit each, wrapping each pear in soft white paper.

Covering plants, whether with earth or straw, should not be done too soon, nor left until too late. The proper time is just as the ground is about to freeze; if covered before this period, there is danger of the the plants heating, and consequently, decay.

Root cuttings of raspberries, etc., are very easily made, and where a stock of a new or valuable variety is needed, this is the readiest method of propagating. The roots are cut into pieces of two or three inches in length, and packed in a box containing earth; the box should be provided with holes to allow the water to run off, and then buried in a dry place, deep enough to be safe from frost; if the ground is naturally moist, it should be drained.

Gooseberries, currants and quince cutting, may now be planted, taking care to press the soil firmly against the lower ends of the cuttings.

Grape vines.—This is the best season to trim grape vines, before the sap begins to flow. So many methods having been mentioned as to how this should be done, renders it unnecessary to repeat them; but whichever method is adopted, it is best to leave upon each cane one or two buds more than are wanted, in order to guard against killing; the extra buds may be cut off after growth starts. The cane must not be cut off close to the bud, but leave about an inch of wood above each bud. The wood cut off in pruning (grape cuttings) may be used for propagation. Cut into pieces of six or eight inches in length, and tie in convenient bundles and bury in sand, and place in a cool cellar until good weather in latter part of March to put out.

M.

Note.—This communication should have appeared in February, but by some means was overlooked. The reader will be able to apply the suggestions it contains. It will not be too late to plant out fruit trees and grape vines when this number of the *Planter* is issued, but the pruning os grape vines should not be done after the sap begins to flow, so that they will bleed.—Ed. S. P.

As a rule, a tree that is growing vigorously will not fruit much. To make a tree bear fruit there must be some check to its growth. After a certain age there is a natural cessation of the growth, and trees then bear. But we do not always care to wait until that time comes. We want fruit sooner. This may be had by checking the growth in some way. The check must not be too violent, or the tree will be injured. It may be said briefly that all summer pruning, cutting back, root pruning, or any other practice that strikes at the life of the tree, or retards the growth in summer, tends to the formation of fruit buds. Among these are bending down, or gently breaking in branches, hanging weights on them, tying them down to stakes, slightly barking the tree or branches in June, etc. But it must be borne in mind that all such checking or pruning should be done carefully and judiciously, to balance or check the force of the tree and retard its wood growth, if the tree is large enough to bear and fruit is desired.

ROOT-PRUNING fruit trees to make them bear is often necessary. Its object is to diminish the vigor of the tree, which induces fruitfulness, probably by the instinctive endeavor of any plant when threatened with destruction to hasten the seed-forming process by which its kind is perpetuated.

#### RENOVATING POOR LAND.

It is slow, difficult, and expensive work to bring up worn-out land, but more especially land naturally poor, to a satisfactory degree of fertility. But it may be done. It has been done, but not all at once. We have known men of means put on twice the value of the land with the expectation of getting a large yield the first year, but they did not succeed.

The best that can be done is to begin the fall beforehand, use all the available manure possible, or some fertilizer if it can be obtained, and sow some crop that grows quick, as rye or Italian rye grass, either of which will make considerable growth and be ready to turn under by the middle of May. This has taken no plant-food from the field. Much nitrogen and carbonic acid, some potash and soda have been abstracted from the soil and the air and stowed up in the easily decayed nitrogenous substance of those crops. Turned under in bloom, the heat of the soil with the moisture of the season will liberate the nitrogen and other elements provided in time to be appropriated by the roots of growing corn.

I have no doubt but the best use that can possibly be made of a little manure or fertilizer is to furnish them to rapid-growing crops to be be turned as manure. I know it seems wasteful to turn under a heavy crop of rye in May in the hope of securing a crop of corn, but let the doubter try it on a small scale and be convinced.

Later in the season the quickly-growing millets, beans, peas, and especially buckwheat or fodder corn may be turned under as manure for the fall wheat. As lands get richer rag-weed often affords a profitable crop turned under in bloom for another crop of wheat or rye. When any green corn is turned under, where practicable, it is desirable to scatter about ten bushels of lime to the acre, or two bushels of salt, while the ground should be pulverized at once.

Frequent harrowing while the decomposition of the green materials is going on is actually manuring. Your neighbor may haul out his manure and dump it, or spread his fertilizer on rough, coarse ground, and you may reap largely the benefits of it if you keep the surface of your adjoining field in a finely pulverized state and frequently stir it.

Some men make better corn on the same land by frequent harrowing than others by expensive manuring. On poor land, with a light purse, keep all the stock you can feed, keep it mixed with muck, if accessible, or surface soil, raise crops without allowing them to seed, and turn under when in bloom for the next crop you wish to grow for the grain.—Practical Farmer.

#### WHAT CROPS TO GROW AND HOW TO GROW THEM.

It is almost an absolute fact that our farmers never go outside of their farm or neighborhood boundaries for information as to the most profitable crops to raise. Papers are published to their special interest all over this country, and there is not one editor of any of these numerous publications who will not cheerfully open his columns to his patrons or the public generally for the dissemination of knowledge on the subject of agriculture. Business men in every other calling have their special correspondents everywhere, and by this systematic arrangement keep informed as to the demand and supply of specialty in which they are particularly interested, whether it be money, grain, stock, or stocks. Money lenders regulate their interest rates by the condition of the money market at head centres. Pork packers fix the price of hogs by the supply and demand, and so on through the whole category of trade and commerce. It is not necessary for the farmer to enter into a complicated personal correspondence to effect the same ends of these other businesses, but every intelligent farmer can, through his agricultural paper, give valuable knowledge to his friends and co-workers in a far away land, by writing an occasional letter for publication, giving the general outlook of the growing crops, and what crops are being cultivated to the largest extent, whether cotton, tobacco, wheat, corn, barley, rye or oats. If stock, what kind, the supply and condition. A more general interchange of opinions through the press would in our estimation be of vast help to the farmers of this country. Years of fruitless toil are often spent in trying to grow crops that neither soil or climate are adapted to.

Hobbies are as prevalent with farmers as any other class of people, and it is right to discuss these questions before the public. If A knows (or thinks he does) how to grow corn better and at a greater profit than B, he, in the interest of good fellowship, should try to enlighten B, and vice versa. Clover seed is being largely discussed just now. Whether a profitable crop, or not is known by the experience of some of our best farmers, and why shouldn't they state what they know? Success and failure in raising clover seed would, if known, have about an even stand off, and for this reason it is well that success and failure should compare notes, and thereby benefit others without experience. This same argument is equally applicable to the growing of all other products of this or any other country. We have time and time again invited our farmer readers to furnish us with their ideas about "what crops to grow and how to grow them." We now not only repeat the invitation, but insist you shall do it .- South and West.

#### CURE OF CHICKEN CHOLERA.

To the Editor of the Southern Planter:

I have received the following prescription from Rev. James E. McSparran, a member of the Virginia Conference of the M. E. Church South, as a preventive and cure of chicken cholera. He tells me he has tried it for years, and it yields most satisfactory results.

"When signs of cholera appear, feed once or twice a week on salt dough, in proportions of one tablespoonful of salt to one quart of meal, to which add a spoonful of alum, dissolved. The salt and alum may be given, when the fowls are too sick to eat, in pills forced down the throat by opening the mouth and dropping the pill into the throat. In this case increase the proportions of salt and alum mixed in the crumbs of bread."

You know, it is said, Methodist preachers are exceedingly fond of fried chicken. Whether this proclivity was the foundation of the above discovery or not, I do not know. At any rate, the Rev. gentleman's discovery is hereby published not only in the interest of the clergy, but of those who prepare chickens for them. If it accomplishes what is claimed for it, and I have no doubt it does, it will entitle Mr. McSparren to the gratitude of a large number of our fellow citizens, and will add many dollars to the wealth of the farmers; and as such I send it to you for publication. Let the mistresses of the poultry yard try it and report.

Suffolk, Va.

W. H. CHRISTIAN.

#### ANOTHER REMEDY.

Editor American Poultry Yard:

Dear Sir,—Through experience it has been proven that the cholera can be kept away from fowls. I will here state a remedy for keeping this dreadful disease from among our towls. Take a tight barrel, saw it in two in the middle, then wash it out good with hot water, so that there is not a particle of bad flavor in it. Then take two quarts of fresh lime and slack it, filling the tub or half barrel full of fresh water; when slacking, add one pound of alum to it and stir it good, let it stand until the sediment has settled and the liquor is clear, and it is ready for use. When using it, take one pint of the clear liquor and add it to one pail of fresh water, and give your fowls to drink during summer months, and you will find that you will not have any chickens dying of cholera.

C. A. H.

#### ROTATION.

Editor of Southern Planter:

I observe your reply to a correspondent in your March number upon the subject of rotation of crops. Permit me to suggest a system for seven fields, that I think would be the perfection of rotation for one who could afford to divide his lands into seven fields. (I use the word afford with due consideration and with special application to Virginia farms lying east of the Piedmont region, but to explain it would require additional space of greater extent than I propose to occupy with this).

1st year.—Corn.

2d year.—Peas on part and tobacco on the rest.

3d year.-Wheat.

4th year.—Clover; don't graze before June 20th.

5th year - Wheat; sow one gallon of timothy per acre.

6th year.—Timothy; mow the best and graze.

7th year.—Pasture for cattle and sheep.

8th year.—Corn again, and so on.

By the way, in two places in your number for March, I see tobacco spoken of as poisonous to the land. The old system of cleaning new grounds, cultivating them year after year in tobacco until they would no longer bring it, and then turning them out to waste was ruinous. So I think is the "tobacco-lot" system by which all the manures made on the farms are put year after year on the same land and the rest of farm cropped without help. But I regard, from my own experience, and from observation of the results with some of my friends, that under a proper system, tobacco can be so planted as to make it a most valuable assistant to the improvement of land. Put your manures (home-made) upon a portion of your cornfield every year and plant it in tobacco, then sow wheat and clover, and never put the same land back in tobacco until you have gone over the whole field with your tobacco system, and you will quickly prove that tobacco does not poison land. X.

[We admit this communication of X in violation of rule. The law of all papers and journals requires that a correspondent who desires to appear anonymously must confide confidentially his name to the editor. In this case, we are sure our friend overlooked this well-established rule; and as his writing shows that he is, or has been, a practical farmer, we use this occasion to say that when he writes again he will let us know who he is, and at the same time to warn other correspondents in the same direction. We should have better agricultural journals if the farmers had less modesty, and were more fearless in placing before their brother farmers, through agricultural papers, their experiences, either anonymously or under a full signature.—Ed. S. P.]

#### UPLAND RICE.

Considerable attention is now being directed to the culture of upland rice. Until recently the erroneous opinion generally prevailed that rice could be grown successfully only in low, wet soils. Although there are numerous varieties of rice, it is practically divided into two kinds, the upland and the lowland, or mountain rice, the latter being cultivated in the southern states.

In South Carolina, where upland rice is commonly grown, and where the soil is level, sandy and inclined to moisture, a yield of three bushels of rice to one of corn has been obtained from the same field. In Alabama, level uplands with sandy loam, or stiff clay uplands, have produced crops beyond expectation. Also, in many parts of Georgia, even in the Chattahoochee Valley, 1,000 feet above the sea level, successful crops have been raised. Now that the practicability and the profits of upland rice culture have been demonstrated, it is assuming an important place in agriculture.

Of all the cereal crops grown, there is perhaps no other that will give as good returns for the small amount of labor and expenses attending its cultivation. It never has been known to rust and has fewer insect enemies than any other cereal; and there is always a ready cash market for it, either in the rough or cleaned, which in the rice mills is worth about \$1.25 to \$1.50 per bushel, and for seed rice \$27 is the usual price.

The profits of rice culture, where it has received proper attention, have, in some cases, been 100 per cent. on the capital invested. In Good paying crops can be raised on any of the ordinary lands, pine or hammock, wet or dry. Very fine results have been obtained on the new pine lands, and still better crops on older lands. There are in some parts of Florida cultivators of poor pine lands, who grow rice in a small way, harvesting from twenty-five to fifty bushels to the acre. On the rich hammock lands from sixty to ninety bushels is not an unusual yield of rough rice, or rice in the hull.

In many places lands that have been worthless for any other purpose have produced a fair crop of rice, thus giving almost a clear gain, when the entire unfitness of the land for anything else is taken into account, and the very small outlay for seed rice, and an inconsiderable amount for labor—the average yield being fifteen bushels to the acre, worth from 75 cents to \$1 a bushel, which had you of noise on side and we are made.

The culture of rice is very simple. It can be sown on the land from which the last year's vegetable crop has been harvested, or in the same fields with corn, sugar cane or cotton. Rice needs good cultivation

till it gets well started in growth, then it will take care of itself until harvest time, when it may be cut and handled much like wheat or other grain. It is said by those who have had experience in the business, that rice can be cultivated with much less expense and labor than cotton, and can be gathered cheaper. The straw, when properly handled, makes an excellent fodder for cattle.

There are thousands of acres of unreclaimed and undeveloped land in the Southern States, particularly in Louisiana, which would make the very best kind of rice land, that can be had all the way from 25 cents to \$1.25 per acre, which, with little expense and preparation, could be made to yield incredible profits.—The South.

#### "RAISED A FARMER'S DAUGHTER, NOW A FARMER'S WIFE, BUT NOT INSANE YET."

I was raised a farmer's daughter, and am now a farmer's wife, and have not gone insane yet. I do not think it is the farmer's wives and daughters altogether that become insane. I think if we will look to the cities we will find more wives insane than there is among the hap-What would become of our country if it were not for the good farmers, their wives and daughters? Young man, if you want a good wife, go among the farmers. Get one that will make your home happy for life. She will not wear out like one who has been raised a parlor lady, and never knew anything but to make fancy work, to crochet. needle work, and all those kind of things. They could not milk a cow. and when the husband comes in at night tired and hungry, all that he can hear is complaints from his wife. The cook don't please her. He has to get some one to wash, and when it is done, it is not well done and all those kind of things. The wife is already half insane, and is enough to cause the husband to be so, while the farmer's daughter, if her cook does not please her, she will turn her off, and say, "Go, I am not to be vexed out of my life and pay a trifling cook besides." I can do my own cooking, milking, washing and ironing if it is not convenient to have it done, and go out in the sunny garden and pull grass and weeds from among the tender plants, and spend a great many hours thus toiling in the sun, but it does not hurt us, for sunshine is good both for the mind and body, while the happy husband is busy in his beautiful fields of growing crops that God has blessed him with, and remembering that He will bless those who earn their living by the sweat of their brow. He comes home at night; supper is prepared; the cows are milked, and everything done cheerful, and after supper is over the family all gather around the home circle beaming with happiness, and listen to father read the good old Farming World. New Prospect, Spartanburg, S. C. E. C. F.

#### ENSILAGE.

Editor Massachusetts Ploughman:

I have had the gold fever, hen, and other fevers at various times, and was quite sick; but when I was taken down with the ensilage fever, I was the sickest man you ever did see, without any exception, having been thoroughly picked up, sold, taken in and made a fool of, and no mistake. I built a silo of 19 tons capacity. I filled it the 23d of June with red clover, uncut, covered it with plank, and weighted it with four tons of stones. In four months it had settled more than one-half, passing through a tremendous heat. I opened it December 3; it was in good order except some four inches next to the wall. I showed a sample to my neighbors; they said it was as good as any they had seen. You will see I have got a good article, as the thing goes. Now comes the trial. I was feeding grain and two fodderings of English hay and one of meadow hay per diem. I left out one feed of English hay, and gave twenty-five pounds of ensilage to each animal. Now, this is the point where I began to feel quite unwell; the milk fell off nearly two cans in four days. I then went back to the former feed. In three days' time they gave the same as before. I then fed twenty-five pounds of ensilage to each animal at night, instead of the foddering of meadow hay, without making any difference in the quantity of milk. The cattle eat it better than anything I have ever given them, except grain. The great heat the mass must pass through in the silo before it is fit to use is where it loses so much of its value. I feel that it is a failure and none can regret it more than myself.

If there is any way of preventing the ensilage from passing through heat, it would then become a great success.

Billerica, Mass., Jan. 20, 1883.

JOHN FISK.

[This, as is seen, comes from the home of Dr. Biley, the pioneer of the ensilage question in the United States. It seems, at the same time, to come from a practical farmer. Does it sustain the value of ensilage in the high latitude of Massachusetts? is the question presented. How about the States of Virginia, North Carolina, South Carolina, Georgia, &c.? Mr. Guy, of Chesterfield, Va., and Mr. S—, of Amelia, have, in our February and March numbers, presented strong arguments for their sections, but here our information stops, with strong opposing arguments of Mr. Lynham, Judge Christian and others.—ED. S. P.]

THE fact should be generally known that new varieties of corn can be originated by planting from the small ears grown on the end of the tassel. By selecting the earliest of these, a predisposition to earliness may be fairly expected.

#### THE FIRST DEVON CATTLE IN VIRGINIA.

University of Virginia, February, 22nd 1883.

Editor of the Southern Planter:

In an article in the February number of the Planter, over the signature J. M. McC-, page 65, the writer states the belief, that Mr. James B. Steinberger introduced the first Devon cattle into Virginia about forty years ago; and that "the first Devon cow brought to Virginia was at the Fairs in Richmond in 1858; at Petersburg and Norfolk with a beautiful spring calf at her side." Although I cannot state the exact date, I am quite sure, that the admissible breed of cattle was introduced into the Tidewater counties some time anterior to the dates given by the writer. By reference to the American Farmer, vol. II. page 324, you will find an extract of a letter from Henry Clay, Esq., Messrs. Smith, Saunders, and Tegarden, dated Washington city, Sept., 17th, 1817, as follows: "When at Baltimore, I went to see the cattle given to Mr. Patterson by Mr. Coke, and brought over from England this spring. They are blood red, without a particle of white about them, except the tip ends of their tails; most beautifully formed, somewhat of the symmetry of deer; smooth, soft skins, but very small indeed; but as large as our native breed. Their excellence is said to consist in the docility and nimbleness of the oxen of that breed; and the richness of the milk, of which, however, they do not give much."

Again, same volume, page 406. The generosity of Mr. Coke of Holkham has secured to Maryland several cows and a bull of this breed [Devon]. Mr. Coke, of Norfolk, [England] is said to possess the breed in great purity. The steers are the fastest walkers of any breed, and are in great use for the plough and draught."

Not very long after this period [1817], Mr. Patterson's pure bred Devons were brought to Gloucester county, Va., by Mr. Thomas Tabb, of Toddsbury, who married a relative of Mr. Patterson: and the breed was disseminated from this point to adjoining counties. Subsequently bulls of the same breed were obtained from Mr. Patterson and others in Maryland, so that for years anterior to 1858, high grade, as well as fine bred Devons, were in common use in the lower counties; and for several years before the war, the red color and Devon marks characterized a large proportion of the common cattle of that country.

Attention is called to this fact especially, because it is my belief, that this breed of cattle is best adapted, of all others, to the Tidewater

and granite sections of Virginia; as well as to show that experience has proved their easy acclimatization and adaptability in other respects.

Allen, in his work on American Cattle, says, "This beautiful race has been considered by some English authors aboriginal; and are claimed to have been known in England at the time of its invasion by the Romans. It is certain that their fineness of limb, uniformity of color, delicacy of proportion, and depth of breeding, give their claims a distinction which no other race of cattle exhibit. They are like no others; and by no intermixture of any other known breeds, have they "been, or can they be produced." Again, he says, "Mr. George Patterson of Maryland, who for many years has owned the largest herd of pure bred Devons in the United States-some seventy or eighty in number, remarked to the writer, in 1842, that his cows were better milkers, and yielded more butter on an average than any other breed." His stock is descended from some of the best animals of Mr. Bloomfield, the principal breeder of the superior herd of the Earl of Leicester [Mr. Coke], and since crossed by occasional imported bulls from the same herd."

The testimony of Mr. Patterson is all the stronger in favor of the Devon cattle, because he was the owner of other breeds of imported cattle with which he could compare them. In the American Farmer vol. II. page 315, in a foot note in regard to "the high prices" paid for imported stock, it is stated: "Thus the late Mr. John O'Donnel and Mr. Patterson, of Baltimore, imported [in 1805] a bull and two cows, from the successor of Bakewell Long Horn breed, which cost, when landed in America, \$2,000. Four cows from Amsterdam cost \$602.89. Before the death of Mr. O'Donnel, Nov., 1805, the stock were sold, and brought from \$150 to \$200 per head at auction." Nor are we to infer from these prices, that these cattle were so greatly inferior to the same breeds now. They were perhaps less thoroughly symmetrical, and characteristically marked, than the show breeds of the same kind at the present day; but they doubtless possessed the same power of propagating their specific qualities, and of adaptation to the country, as those imported now. Our country is, however, large enough, and possesses a variety of climate, soil, and aliment well adapted to all of the improved breeds of cattle, horses, hogs and sheep when carefully managed.

JNO. R. PAGE. M. D.

THE tongue is the worst part of a bad servant.

#### CROP MORTGAGES.

Nothing contributes so much to the advancement and material prosperity of a State as the independence of its producing classes, and nothing is so necessary to their independence as freedom from debt. A success that is limited to a few classes, such as traders, merchants and speculators, is sure in the end to be disastrous to the country and entail financial loss upon the whole people. This is as true as the axiom that general prosperity is necessary to the stability and perpetuity of a State. Any system that tends to enrich the few at the expense of the many, is destructive alike to human happiness and political freedom, hence any order that teaches its adherents to discountenance the credit and mortgage systems has the general prosperity of the race for its object, and human happiness as the grand climax of its ultimatum.

The mortgage system, prevalent with so many farmers in the Southern States, has destroyed more happiness, wrecked more fortunes than any other one thing, and has been one of the most serious barriers to Southern success. We have but to cast an eye across the Mississippi to see the baneful effects of this ruinous system. Homes have not only been made desolate but lost, and their once happy occupants turned out upon the world penniless and in want. Debt is one of the grievous burdens of life—the most destructive to domes ic tranquility, and yet more than one-half of the farmers of the South have borne its bitter galling load all their lives. Until producers are freed from this greatest evil of the age, Southern planters will never be a contented people. The farmers of Texas are in a better condition generally than perhaps any other State, except in its eastern and southern borders, and yet the mortgage system is not wholly eradicated here.

What a farmer can promise himself when he is bound hand and foot by a mortgage on the products of his labor, his teams and farm implements, we are unable to see, and yet thousands who ought to be our most useful and independent citizens are enslaved from year's end to year's end to their creditors, which, in a few years, generally results in the total ruin of the debtor, who, in his desperate efforts to free himself from the chains of debt, abandons his home and tries his fortunes "further west," and becomes a financial wreck. The man who is hugging to his bosom the delusion that the credit and mortgage system is a benefit to the poor man has but to look to the condition of those who have been practicing it for any length of time to be convinced that it is a curse, with hungry ruin and desolation as its conse-

quences. The difference between cash and credit will not fall short of 25 per cent., and sometimes, when there is a failure in the crop, and sacrifices have to be made to redeem pledges, it is even 40 to 50 per cent. What business can stand such a strain on its income? It would in a little while involve the merchant and tradesman in bankruptcy and bring the speculator to financial ruin. How, then, can the farmer expect to succeed with such fearful odds against him? The past year has been one of comparative plenty, and the necessity for credit is not so great as it otherwise would be, and it is to be hoped it will be less prevalent, and as credit with a mortgage to secure payment is the nearest road to ruin the farmer can travel, he should guard against it as a deadly enemy. Let the teachings of the Grange prevail, "discountenance the credit system that tends to prodigality and bankruptcy," and farmers will become the most independent and prosperous citizens of the commonwealth; without this they are doomed.

-Belton, Texas, Farmer.

#### VALUE OF THE SWEET POTATO AS A FOOD-PRODUCING PLANT.

We see in some of our exchanges that Mr. H. C. White, State Chemist in Georgia, has analyzed the sweet potato, and found it to contain about half as much nutrition as Indian corn, two bushels potatoes equaling one bushel of corn for fat-producing purposes. We have seen no official statement of the analysis, but if this is correct it places the sweet potato, in nutritious qualities, very high in comparison with other root crops. Land capable of producing twenty bushels of corn per acre will make of potatoes from 100 to 125 bushels, which would give two or three times the value in food.

We have always been of the opinion that the great value of the sweet potato crop in the Southern States was not duly appreciated and sufficiently utilized. Root crops are always mostly more prolific than grain crops. They exhaust land less, and give more in return for labor and for manure. Of course they are not as nutritious, pound for pound, as grain, but in the great increase of material they yield more nutrition to a given quantity of land than any of the cereals. Irish potatoes, turnips, beets, carrots, both in Europe and in our Northern States, are all justly prized as the most valuable of farm crops. The sweet potato is superior to them all as food for man and beast. It may be used for all the purposes to which the others are applied, and for many others besides. In the first state, just out of the ground, it

makes an excellent substitute for arrowroot, by grating the pulp into water and allowing the starchy matter to subside.

As a vegetable it is a favorite on every table, cooked in great variety of ways. As a desert it makes a better pudding or pie than a pumpkin. It is good food for stock of all kinds—horses, cattle, sheep, and hogs. We knew an ald planter once who always raised and abundance of corn and other provisions for his stock, but who was an enthusiast over the sweet potato crop, estimating it on the basis of the yield returned from the labor bestowed, as of more value than any other food-producing crop.

Our best Southern varieties will probably soon become a very important article of export to the Northern States. The farmers in Georgia are complaining this year that with an immense crop of their "yellow yam," raised in expectation of shipment, there is no demand in the Northern market for this variety, the Northern people preferring the dry, tasteless "Jersey yam" to their swecter and more delicate "Georgia yam." The Jersey potato, like our "brimstone" and "leather-coats," are dry and mealy, with very little sweetness, and hence are preferred for the table to be eaten with meats like the Irish potato. If our Georgia friends could only show them how the "yam" should be cooked, this fancy would probably give way. The sweet potato, like unripe fruits, nuts, and other farinaceous products which contain much starchy matter, becomes very sweet on being kept for a few months, a large portion of the starch being gradually converted into sugar. A well-seasoned "yam" baked slowly, as it should be, is really more a fruit than a vegetable. The time will come when they will be prepared in this way, and by being put up in sealed cans will become an important article of trade to the North as well as Europe.—Charleston News.

#### SYSTEMATIC FARMING.

System is the soul of success and progress in every handicraft, and most emphatically so in farming. In order to make any satisfactory advancement it becomes necessary to adopt and carry out a well defined system of labor. Let this fact be deeply engraven on the memory, for no people are greater violaters of this sound business principle than farmers. As a consequence none have made slower progress in improving and elevating themselves than they.

While we do not believe that their tardy advancement is owing entirely to their lack of method in the routine of farm life, yet there is no doubt but it has had much to do with. And unless farmers amend

greatly in this respect, themselves and their calling must inevitably continue at a low ebb. We know well enough that the varied and extensive operations of a large farm are very hard to reduce to a thorough system, but something approaching it can be done and should be attempted, and till then it is vain to look for any decided progress. All should make the effort to reduce things to a system. The first attempts may be discouraging failures, but let all persevere. Failures are teachers, and every effort made renders each succeeding one easier and more certain of success.

The farmer should take a prospective glance at the operations of the year, and then draw up some plan of operations to guide him. The farmer should have with him at all times a note-book and pencil to enter any suggestive or valuable thoughts as they occur. Many a happy idea would thus be preserved to him. Each day should have its routine of labors and duties all clearly marked out, for as is the days so will be the months and years. There ought to be a regular time for feeding the stock, a time for breakfast, a time to begin work, a stated recess at noon, and a regular period for closing the day's operations at night.

Another important rule is too much neglected. The farmer must order his work according to the state of the weather. He must have work for the rainy days as well as for the fair days. By ordering his work according to the weather, especially in winter, the farmer can perform more at less tax to the system than he otherwise would. One cannot work well in an open, exposed place on a cold windy day, but if he can shelter himself by a belt of woods he can do a good day's work. In this way the farmer can make better progress, and with more ease and comfort to himself and team, than he can by persisting in one thing till the job is finished. However desirable and wise it may be not to have "too many irons in the fire at the same time," yet the weather is so potent a factor in the labors of the farm that it is always well not to have any Mede and Persian laws to observe. This change of work to suit the conditions of the weather will not interfere with system. This is a part of the system. Of course there is a certain amount of daily routine that must be gone through with, despite the weather, but the field and farm work will readily admit of change in winter at least.

We insist upon system. There is no getting along without it. As the farmer should have a map of his farm, so he should have the farm work all mapped out, as far as can be, and thus by having a definite object in view he would the more certainly arrive at a definite end.

— Weekly Index-Appeal.

#### SAWS, OLD AND NEW.

Fashionable society is like the froth of a wine cask, whilst the best people, as the good liquor, rests quietly below.

Music is the language of the soul.

In landscape gardening the only art is in aggregating the beauties of nature.

Intellectual poverty is the fertile bed of gossip: like the bitter per simmon, it flourishes only on poor soil.

If you have an enemy, loan him money, and thus ruin him.

Envy is the penalty of poverty of achievement. A lie has half ended its travels whilst truth is pulling on its boots.

Are you slandered, don't try to run it down; but so act as to live it down.

As salt at the table adds new flavor to every dish, so beauty in the household enhances every other pleasure.

It is safer to limit our desires to our means, than to attempt to satisfy their infinite expansion.

Moderation prolongs all our pleasures.

Seek only those enjoyments, which make the body more healthy, and the soul more Godlike.

The first law of health is to be at all times as far as possible, comfortable: avoiding cold, heat, fatigue, and excess in eating and drinking.

The best medicine is rest, fasting, cold water and sleep.

Let us have a sound mind in a sound body.

A man who gives away all his money, is like the hunter who has exhausted all his ammunition.

Wealth is desirable, independence a necessity.

Agriculture is the last in time of the great sources of wealth.

Commerce, mining, manufacturing, and hunting and fishing is the most important support of the human race; and yet the cultivators of the soil are the pack horses in all nations.

Monogamy is the basis of civilization.

Man without religion is like a ship without a rudder or ballast; the passions gather into storms, and shipwreck is too often the penalty.

Men are like rough diamonds, and education is the lapidist, upon whose skill depends the lustre of the jewels.

Happiness is very equally distributed among men, like the wine cups at a banquet, however unequal in size, they may all be filled.

Women, like sheep, only show courage when they go in crowds.' Modern science, plays havoc with old errors of faith and sentiment. The earth does move and the sun also.

The lion may be the master of the forest, but he does not hunt alone but in packs, like dogs.

Man is the filthiest of animals; none other eats cured tobacco! In this he falls below the hog; which is inclined to be cleanly, when not subjected to his power. But in this as in other things, he is capable of extremes, rising in beauty and intelligence to the Gods, and sinking into hideousness and idiocy below the devils.

How crime, and lost love, and banished hopes, scar the soul, and sink us into despair!

Here lies the force of Christian religion; our crimson is made as Whom the Gods love die young.

white as wool; our future made possible for purer and better life. This it is, that alone can condone the past, and minister to a mind diseased!

A man forgives an injury sooner than an insult; an injury may be repaired, but an insult attacks our self-esteem, which seeks restoration only by vengeance.

Ingratitude stings like the tooth of a serpent: therefore, bestow not favors which can never be repaid.

White Hall, Ky., 1883.

C. M. C.

[We recognise the writing and initials of the Hon. Cassius M. Clay. His long life enables him to verify the apothegms he has communicated.—Ed. S. P.]

#### RICHMOND, VIRGINIA.

From a paper prepared by a member of the Virginia society of this city, we are permitted to make an extract in regard to the manufacturing interests and advantages of the city of Richmond, one of the most promising industrial cities of the "New South."

"Richmond will soon have a population of 100,000. The people are eminently virtuous, refined, educated and hospitable. They have fully awakened to the necessity and policy of vigorous industrial efforts, and new avenues of trade are constantly being opened by the active spirits among them. Steam operated machinery is extensively used, but the unsurpassed water-power at the falls and along the canal is more generally utilized. Great manufactories have resulted from this, such as the Tredegar Iron Works, Old Dominion Iron and Nail Works (which many a Union soldier will sadly remember!) Franklin and Manchester Paper Mills, and numerous flouring mills and other works covering the banks of the canal and the river for miles of the city front, all operated by water power. Of the steam power works, "Vulcan," "Richmond" (iron), "Metropolitan." and "Shockoe" works are most prominent, though there are many others of importance.

Tobacco is the staple of trade in the city. During the last year the sales of prepared tobacco exceeded 50,000 hogsheads, besides about 8,000,000 lbs. of loose tobacco were sold. The internal revenue paid by Richmond on its tobacco business, in 1878, approximated \$2,250,000. Half a million dollars were expended the past twelvemonth in building, and the city is rapidly clothing itself in new and bright attire. In a little while she will be rehabilitated; filled with progressive ideas, and hurrying in mid-career toward that proud destiny which Jefferson predicted for it before the nineteenth century should lie down with the sleeping ages."

[We have received a copy of the *Industrial Monitor*, published at Chicago, Ill., in which the above extract is *marked*. It will be gratifying to the people of our city, as well as all the citizens of our State, to see that the capital of their Commonwealth has a recognised importance as a trade and manufacturing centre.—Ed. S. P.]

#### THE GOOD HUSBANDMAN.

To become a successful farmer in the best sense of this expression, a more thorough knowledge of the principles of agricultural science are equally as desirable, as thorough information in regard to any pursuit in which one should determine to engage with the view of making it a success. Thorough preparation in the line of one's chosen profession or calling is the pathway that leads to success. One reason why so few graduate at our so called agricultural college in the farm department is because they do not make farming the centralizing idea of their lives and bend their energies in this direction. For too few comprehend the vast amount of practical knowledge which can be acquired at a properly conducted agricultural college and made serviceable on the farm.

The good Husbandman should acquire habits of accurate thought and investigation, which would not only enable him to compete with other professional men or tradesmen, but would give him dignity and power. In the direction of specific education he should have sufficient knowledge of geology and chemistry to understand the composition of the soil he is to cultivate, and what plant-food it requires to produce remunerative crops. "It is a fact," says Prof. Orcutt, "which is beyond controversy, that every farmer who is ignorant of chemistry, works in the dark and is liable to misapply his labor and lose all."

The mistake of mixing quick lime with ammoniated manures will suffice to show the importance of correct knowledge. Such information coupled with practical knowledge will show by paying results that brain work is the best ally of hand work on the farm.—American Grange Bulletin.

#### AGRICULTURAL ITEMS.

It is stated that the State Chemist of Georgia has found, by analysis, that one bushel of sweet potatoes contains half as much nutrition as a bushel of corn—thus two bushels of potatoes equalling one bushel of corn for fat-producing purposes. If this statement is correct it is important, since land which will produce in the South forty bushels of corn to the acre, will produce from one hundred to one hundred and fifty bushels of sweet potatoes.

While, in a degree, the heat of an animal is produced from the food it consumes, and therefore warm stables and steamed food and warmed water seem economical, yet it is doubtless true that animals are often greatly refreshed by drinking cold water. The thirsty man does not warm his favorite beverage, even if its effects be recognized in the saving of food.

The plan has been suggested of putting farm poultry-houses on wheels, that they may be moved from place to place, thus giving to the fowls fresh pasturage, clean surroundings, access to the stubble fields after harvest, insects and other food. Only a few moments would be required for moving the house from place to place; but there might be times when tramping to distant fields to attend to the poultry might be somewhat inconvenient.

Nothing is more generally useful on a farm than a sweep or tread horse-power. It can, with proper machinery, be applied to many purposes, sawing wood, cutting feed in winter, and grinding grain for stock. A good horse-power will thus save each year many times the interest on its cost, and with proper care will last many years. A small steam-engine will serve the same purpose, but most farmers have horses that must be fed whether worked or not.

From the Agricultural Department at Washington, we find that the average price of corn in the United States for eleven years, from 1871 to 1881, inclusive, appears to be about forty-three cents a bushels. The highest annual average was sixty-four cents in 1874, whilst the lowest was thirty-one cents in 1878. The aggregate value of the crop has increased in ten years from \$435,000,000 to \$759,000,000, though the last crop was the smallest for the past seven years.

We thank our correspondent for these items. They are valuable and suggestive.—En.

Obstinacy and heat in argument are surest proofs of folly.

#### JAPAN CLOVER.

Editor Southern Planter,—I see Mr. Corbin wants to know something more of the Japan clover—Lespedeza—and as I am very anxious to know more about it myself, I send you an article clipped from a northern paper last fall, and also a postal I received from Mr. J. W. W. in reply to a letter I wrote him, in hope they may draw out others on the subject. If it will act on our land as it does on North Carolina land, then it is what we have been looking for. I fully endorse Mr. Corbin's opinion of the Planter, and must have it if I have to go without my butter.

Broomstraw.

Bush or Japan Clover (Lespedeza striata).—J. W. W., Franklinton, N. C., writes: "I inclose specimens of a plant that was discovered here sixteen years ago. I desire you to give both its common and botanical name. It speedily eradicates broomsedge and gives in its place a rich pasture of nutritious verdure which horses and cattle prefer to anything else. It generally blooms from the middle of August into September, and yields vast quantities of very small seed. It will doubtless prove to be a godsend to the South, for it will be the means of making productive the poor, wasted, and turned-out lands, as its fertilizing principles are equally as good as those of peas or red clover when plowed under, and it grows thick and dense on the very clay itself where nothing else will take root. It is unlike other clover, as it never runs out, and grazing cannot destroy it. Where it eradicates broomsedge, with its tough roots and clumps of sod, it changes the condition of the soil from tenacious, unmanageable turf, to a porous, loamy one, giving but slight resistance to the plow. After breaking it is in as good condition as regularly cultivated land, making certain a crop, which, under other conditions, would prove a failure the first season after breaking. There is no better grazing plant in the South, and as a proof that it bears mowing, Prof. J. C. Hines, of this place, has it growing in his yard, and has mowed it twice and it is ready for it again, and on the bottom lands of Mr. Albert Cooke, of Franklin county, it is now waist high, and some few weeks back Col. C. M. Rogers, of Granville county, turned under a field of it that was breasthigh to a horse. It is easily propagated, as it is immensely prolific in seed, which are washed over the land by rains, and are carried by stock over their range. It is rapidly spreading over a large section of this immediate vicinity, and yet, while it is so aggressive, it is easily killed out with the plow, decaying quickly after being turned under like pea vines, and filling the soil with as valuable elements of fertility. When this plant grows it affords good grazing from soon after its appearance until frost, and adds greatly to the product of flesh and milk, and at no season of the year does it cause that flow of saliva in horses that the red clover does. Cultivation might materially develop this plant, but as yet it has been used only as a grazing plant and allowed to grow wild,

as it has shown that it is amply able to take care of itself and furnish rich pasturage and grazing ground without any care, trouble, or expense to any one, and improves the land with each year's deposit. Whence it came is not known, but it is supposed to have found its way here from China by some means; however, it is conceded to be a boon of the late 'unpleasantness,' as it was found only at intervals along the wake of Sherman's army. North Carolina has it in two counties, South

Carolina in one, and Mississippi in two."

This plant is known as bush clover and Japan clover, and botanically as Lespedeza striata. Usually it grows from six to ten inches high, and we have never before heard of it growing so high as above stated. It has been known in the South for thirty years, and is now quite common, covering large tracts of turned out land and the roadsides in Georgia, South Carolina, Tennessee, North Carolina, and Mississippi. Its origin is unknown, but the seed has probably been introduced from China or Japan in some accidental manner. It has turned out to be one of those free gifts of nature to mankind which are more valuable than many things we pay dearly for. It is rapidly spread by animals, which graze upon it and drop the seed in their dung, and by birds in a like manner. It is doubtful if cultivation would be a means of improving it; it seems to thrive with abundant vigor under its present circumstances.

#### Franklinton, N. C., November 3, 1882

Dear Sir,—We sow the Japan clover in the winter on unbroken land. It will grow on wheat land or any other kind of land. The better the land, the more luxuriant it grows; can send you a packet of clean seed by mail for twenty-five cents, fifty cents and one dollar. Larger quantities will have to be in the dirt, as there is no other way to obtain them in any considerable quantity.

Seed in the dirt will cost five dollars per bushel, boxed and delivered

at the cars.

Yours truly,

J. W. W.

Pea-cheese is considered, in China and Japan, a very important food. The peas are soaked in water for about twenty-four hours, strained and then ground in a mill with some of the water which has been put one side. The product is then filtered, the filtrate concentrated by heat, and after skimming once or twice is cooled. The caseine is coagulated by plaster, and a salt, thought to be chloride of magnesium, added. The cheese is grayish white in color and of an agreeable taste.

It usually makes little difference in the time of ripening winter wheat whether it is sown early or late. If it gets a vigorous though small growth it is just as likely to be early as if sown the last of August or first of September. Thorough preparation of the soil and heavy manuring are more important than early seeding.

#### FARMING IN THE SOUTH.

The Massachusetts Plowman has the following from one of its correspondents. We take it as evidence that the antagonisms against the South are dying out amongst the reasonable men of the north, and that they can say to their young men, "go South," as Mr. Greely once said, "go West."

"I have grown in Hinds county, within twelve miles east of Vicksburg, a fair crop of oats; after harvesting, without manure or fertilizer, I housed a crop of sweet potatoes and specimens weighed 2 lbs., 1 lb., 15 oz., of course best, but no search to select. I have grown on land where oats had been housed as above, thirty bushels of our "cow pea" and received a \$10 cup as best crop. I have sown on land, cotton crop laid by in July and August, and oats and rye in August; grazed all winter; plowed in the spring after, and made corn or cotton, or, if I desired, left it for a crop. I have sown on a standing crop of corn, rye, cut down stalk—corn housed, of course—in January; grazed until in March, housed my crop in June, then a good pasture until it freezes.

I have seen as fine, as large onions in May and June from seed sown in the fall, as those grown from sets or buttons. I have grown two crops of Early Rose Irish potatoes, and the fall crop was the largest and finest. Dr. Ravenal grew ten tons Bermuda grass, near Charleston, S. C., I see published to day, Jan., 9. Better Red Astracan, Early Harvest, Winesap, Russel and Baldwin apples you never saw than we have. Solon Robinson, at my table about January 17, 1840, pronounced the latter equal to any he had seen, East or West."

GLEN ALPINE FARM, BEDFORD Co., VA., March 3, 1883.

Editor of Southern Planter:

On page 150 current volume, Mr. Thomas F. Eaton, Cana, N. C., asks for a formula for a good fertilizer for the sorgo crop. If he will use well-rotted cotton seed in the drill when he plants his crop, and scatter them in the furrow, I think he will find it what he needs. We have had no experience with stable manure on sorgo, but some years since experimented in Louisiana with well-rotted stable manure on a cut of ribbon cane, which stimulated it into a vigorous growth and prevented its ripening. consequently the quality of sugar and molasses was reduced and of decidedly inferior grade. Of late, I am informed that a fertilizer is manufactured from cotton seed and used extensively with satisfactory results.

EIRIE.

Worth begets in base minds envy; in great souls, emulation.

#### THE PERILS OF WORK.

There were three or four of us Michiganders at the same hotel in Montgomery, and all were amazed at the sight of so many colored men loafing their time away on the street. The man from Iona county finally thought he'd make a few inquiries, and beckoning to a stalwart black who had spent the last two hours on the curbstone, he asked:—

- "Have you any work to do?"
- "Not jist now, sah."
- "Have you ever tried farming?"
- "Oh, yes."
- "And how did you come out?"
- "Mighty slim, sah. De white folks down heah don't encourage de black folks 'tall."
  - "How's that?"
- "Well, in de fust place, dar's de rent ob de land. Dey might jist as well frow off de rent, but dey won't do it. Den if I git de land and sot out to borry a mule, nobody will lend me one."
  - "Suppose you had a mule?"
- "Den whar would I borry a plow? Can't raise craps onless ye plow. Den when I got de plow an' went ober to Kurnel White's to borry a harness de kurnel wouldn't be home, or he'd be usin' all de straps he had."
- "Couldn't you make it go if you had land, seed, mule, plow and harness?" asked the Wolverine.
- "I reckon I might, but I dunno. 'Sposin de mule expired or de harness broke, or some nigger stole my plow?"
  - "That's so."
- "An' the old woman might die, or one of de chill'en git snake bit, or it might rain fo' weeks widout a break. Tell you what, boss, you men from de Norf think it looks hard to see so many of us lyin' roun' de towns widout work, but you doan' know nuffin 'bout de perils of gittin' right down to hard work an' takin' all de chances. My ole woman says it seems like flyin' in de face of de Lawd, an' I reckon she's mighty nigh k'rect."—Detroit Free Press.

THE use of blinders and tight-check reins is going out of fashion in England. For a working-horse especially, the check-rein is an abomination, compelling the horse to work in as awkward a position as a man with his hands tied at his sides.

#### AGRICULTURAL FAIRS AS A SCHOOL.

The value of improved horses, cattle, sheep and hogs, is not generally known or appreciated in Virginia. There are so few of these improved animals yet in the State, that our people generally have not had an opportunity to know much about them, but the feeling to improve these domestic animals, is decidedly growing among the farmers of the Valley, and if properly encouraged and directed, will result in great good to the country. If not, this feeling may prove detrimental, time and money be thrown away, and the improvement be almost if not entirely lost. Under the present system of labor, every kind of agricultural machinery must be resorted to, to enable the Virginia farmer to compete with the new, rich and cheap farming lands of the West, and the improvement of all kinds of labor-saving machinery for the farmers use is both rapid and great.

Our young farmers must be educated in all these things before they can judge which suits their purpose best, which will be the most profitable for them to use, which will last the longest or give them the best return on their investment. They cannot be expected to know how to make the best selection of their farm and breeding animals, and all their machinery and farming utensils intuitively, without an experience with or knowing of all these things, unaided and alone. To obviate this difficulty some of our intelligent and public spirited farmers have gotten up Agricultural Fairs. At these Fairs every age, sex and breed of domestic animals, every conceivable kind of labor-saving machinery and agricultural implements, is got together and put on exhibition, also every different kind of farm product. The men who understand best each of the different branches of agriculture, are selected to examine and compare all animals and articles, and award the prize to the best of its class. This makes the best possible school for the young farmer. Here he can see everything that he needs in every department of his profession, compare them together and form his opinions, aided by the judgment of the most skilled and experienced judges. He can see more and learn more that will be of service to him, in three days at a good Agricultural Fair, than he can in three years at home in his general routine of business. In those States where they have the best of these fairs, and where they are best attended, you find the farmers the most intelligent and thrifty, and the best of all kinds of farm implements and labor-saving machinery. The best and most improved breeds of domestic animals and intelligent farm-labor, the best compensated for its services at the Fairs, present the best oppor-

tunities for forming acquaintancies that will be agreeable in future life, and useful, and to learn many new ideas from social intercourse with farmers from other neighborhoods and localities that will prove useful and profitable. There, too, honorable competition creates a commendable spirit of emulation, that will make us probably a little more attentive to, and thoughtful about our farming, which to day the least of it will do us no harm. Are not the farmers of this Valley nobly struggling to educate their children in such a manner as to make them good, useful and successful in business, and to accumulate a sufficient amount of means to start them in life? Then why neglect to build up and keep in operation these schools at which these grown-up children in the least possible time, and at the most trifling expense, can learn, to them the very most important and useful knowledge? the knowledge of all the best, most useful, and profitable animals, machinery and utensils, used in their profession. Nothing will prove more expensive to the young farmer than the lack of knowledge of the best and most profitable farm animals, and nothing more annoying than the want of proper knowledge in selecting his farm machinery and utensils. Then give him the place and opportunity to acquire this knowledge before his little capital is invested in inferior animals and worthless machinery, and save him a vast deal of loss, sorrow and annoyance. Ah, how much easier and better we aged farmers could have succeeded had we begun life with the knowledge and experience we have at the close. Then let us give to our brave young men, the light of our little knowledge and experience to enable them to avoid the errors, loss and annoyance we have endured. Let us do all we can to render these young, bright, hopeful hearts, the best service we can, and to put into their minds whatever of knowledge we possess, to enable them to avoid the snares and pitfalls that have caused us so much sorrow. Let us do all that is in our power to smooth the path of life for the noble, brave boys and charming girls of the Valley. We have traveled this path almost to its end, and we can do much to smooth it up for those dear ones so soon to take our places, if we teach them the little we know and so guide them by the light of our experience as to enable them to begin where we leave off. But, my brother farmers, to accomplish this great good for the boys and girls we love so well, there must be more than two Rockingham names found on the rolls of the Agricultural Society of the Valley, and more than one name shown to take an interest in the advancement.

GEORGE CHRISMAN.

#### EXTENSIVE FARMING—EXPERIMENT WITH TOBACCO IN VIRGINIA.

PITTSBURGH, February 15, 1883.

Editor Farmville Journal,—Whatever diversity may exist as to the means to be employed, all farmers in the South, and especially in Virginia, recognize and admit the necessity of using some means to improve the general agricultural condition of the country. Having been convinced myself that the remedy lay in a resort, not to fancy—but intensive or "high" farming, I undertook last spring to determine by experiment with tobacco whether that system would be as profitable in Virginia as elsewhere.

Many of your readers knew of my undertaking this experiment, and I will here say were unanimously of opinion that it would be a failure. The advice and prognostications I received were by no means encouraging, but I reflected that these friends of mine were educated in a school opposed not only to high farming, but, in a great measure, even to progress and enterprise. Moreover, I had letters from a number of Yankee farmers—growers of seed leaf tobacco in the Connecticut Valley—who assured me that they found tobacco growing profitable in proportion as they fertilized heartily. Encouraged by their uniform and brilliant success, I felt willing to take some risk in an experiment which I believed to involve some important issues. Accordingly, I purchased a lot of the Mapes' special tobacco fertilizer, which cost sixty dollars per ton in Farmville. This was applied at the rate of 1,400 pounds per acre—one-half before planting and the rest at the first working.

Most of your readers will remember that the immediate vicinity of Farmville suffered during the early part of last season from a long and severe drouth—so severe that it was impossible to get a good stand of tobacco, and in fact, at one time, it threatened destruction to the entire crop of tobacco and corn. Well, my tobacco suffered in one way as much as anybody else's, viz., it was impossible to get a stand—but in another way it did not suffer nearly so much as that of others, i. e., while other crops turned yellow, I am told that mine continued green and healthy looking.

I here remark, by the way, that this was a direct refutation of one of the strongest arguments offered against heavy fertilizing; that in case of drouth it would burn the crop up. I account for it simply by the fact that I used a complete tobacco fertilizer—one made to contain all the elements and in the proper proportion found in the tobacco plant, and hence there could be no reason why tobacco so manured

15

would suffer any more than any other. Had I used only Peruvian guano, or any other highly stimulating but incomplete manure, the result might have been different.

Well, as I said before, the dry weather absolutely prevented a good stand from being had, and, in addition to this, made many of the plants so late that on this account alone the crop was short one-third of what it would have been otherwise. Moreover, this tobacco being isolated from the main crop suffered very greatly from worms. However, I am informed by my brother that the crop on being stripped was found to yield 1,200 pounds to the acre, and that the best of it was of the best quality, up to the date of its sale, offered in the Farmville market.

On the whole, therefore, I congratulate myself, and I think my farmer friends will admit that my experiment was a success. The acreage planted was too small to admit any large returns, but. so far as it went, it indicates that the solution of the problem of tobacco culture in Virginia will be found in this: Plant less land, put on more manure, cultivate better and cure and handle the crop more carefully.

I am sorry I cannot give exact figures with reference to everything connected with this experiment, but will say this: The cost per acre of fertilizer was forty-two dollars; the proceeds of the crop per acre was ninety-five dollars, leaving fifty-three dollars to cover the cost of labor and the profit. Had we gotten a good stand of plants, and had not a large portion of the best tobacco been scalded by the sun, when cut, I think the proceeds would have been, at the least, one hundred and twenty-five dollars per acre, leaving a margin for labor and profit of eighty-three dollars per acre.—Verb. sap.

Yours, &c.,

GEO. B. MORTON.

#### JAPAN CLOVER.

[From Maine Farmer.]

Mr. Editor,—I have recently read an article in the Farmer, written by Mr. S. W. Thomas, about the Japan clover in this section of N. C. I can heartily endorse what he says about it, and also give some additional information. It has several qualities in common with clover. It is a trifoliate, and has a deeply penetrating root, and prefers a clay soil, growing and thriving like several others of the six additional lespedezas found in this State, on the naked red banks and bottoms of gullies (hence it aids in arresting gully formation), and also it brings its supplies from the depths to improve the soil; like clover, it is a good

grazing plant for all sorts of farm stock, and they seek it. Like clover it has a notable fattening quality, and it resembles clover in its chemical composition. The following is its analysis:

Japan Clover.—Nitrogenous, 16.6; tat, 4.1; ash, 5.92; lime, .99; magnesia, .56; potash, .88; soda, .51; phos. acid, .39; sul. acid, .20.

Clover.—Nitrogenous, 12.3; fat, 3.0; ash, 5.65; lime, 1.92; magnesia, .69; potash, 1.95; soda, .09; phos. acid, .56; sul. acid, .17.

From the above, its fattening capacity is evident; it surpasses that of clover. Its utility as an improver of the soil in comparison with clover is also explained by the analysis, its ash contributing to that end half as much potash, two-thirds of the phosphoric acid, and more sulphuric acid. A notable advantage is that it thrives in an exhausted soil where clover will not catch at all. It requires for its perfection less of the more exhaustible soil constituents—those withdrawn in the cultivation of the common crops, and seems capable even of substituting soda for potash, for its own use, while it restores the latter out of the sub-soil. Another valuable quality is that it stands well our midsummer droughts, and grows luxuriantly on the summit of the Blue Ridge, at a height of 4,000 feet. It flourishes and blooms through the heats of August, and on till frost, furnishing pasturage after most other natural forage and volunteer herbage has perished. And it is no small recommendation that it supplants and eradicates that worthless, unsightly and disreputable plague of a plant, the symbol and the scourge of a declining agriculture, broomsedge, audropagan scoparius. This plant is destined to be ultimately introduced in all sections of this country, yet its introduction will be slow on account of the difficulty of propagation, due to its habit of fruiting; the seeds, instead of being agglomerated in heads, as in the clovers proper, are scattered singly along the stem, maturing and dropping in succession throughout the season. Consequently the clover seed are obtainable only in moderate quantities. When once it is introduced into a section of country, it soon spreads for miles around, being carried by stock and washed by the rains. It never runs out.

Franklinton, N. C.

J. W. WALKER.

George May Powell makes the very good suggestion that sprouting acorns or nuts from the forest may be planted with no more trouble than the setting out of cabbage plants, and the training of the young to look after the growth of these "forest babies" would be one of the best means of inducing the incoming generation to take an interest in forestry.

#### HOUSEHOLD RECIPES.

#### BY A VIRGINIA LADY.

QUICK WAFFLES.—One cup rice (which must be boiled, and when done get thoroughly cold before using) three fourths pound flour, one heaping teaspoonful cream tartar, sifted with the flour; half teaspoonful soda, stirred in a pint and a-half of milk; two eggs beaten light; have your waffle irons hot and greased to prevent sticking.

LIGHT CAKES.—One quart flour, mixed at night with two kitchen spoonfuls of yeast, a piece of lard half the size of an egg, one wellbeaten egg; thin with milk; set to rise. In the morning stir it up, drop from a spoon on a hot hoe, and bake quickly; tear them open

JELLY.—One box Cox's gelatine soaked in cold water, one pint, till nearly dissolved; the thin, yellow rind of two large lemons, and juice of three; one and one-half pounds white sugar. To this add one and onehalf quarts boiling water; set it on the fire till it comes to a boil, when add one pint good wine and strain.

Blanc Mange.—To one quart cream add one pound sugar, half a pound of almond blanched and beaten fine; dissolve one box of gelatine in a pint of milk, strain through a muslin bag into the cream boiling hot, stirring the blanc mange hard all the time; having first wet your moulds with cold water, pour into them and set to cool. A teaspoonful of vanilla, as a seasoning, or a little rose-water, improves it very much.

Chocolate Mange.—One box gelatine dissolved in one pint milk; pour this by degrees, while boiling hot, on five ounces grated chocolate, stirring it all the time; when cool, add four well-beaten eggs, pouring this into a kettle with one quart cream, in which has been dissolved one pound sugar, let it boil till the chocolate is thoroughly melted and smooth, and the mixture has become much thickened; pour into moulds, and eat with whipped cream.

[We feel that we can give a guaranty to the foregoing recipes, for two reasons:

1. They are furnished by one of the best housekeepers in the State.

2. We have frequently sat at her table and partaken of her excellent food.

Now, we wish to suggest and beg this lady-friend of ours that she will keep the Planter posted from time to time, if not each month, with her experience in domestic productions and economy, and thus interest other ladies who read the Planter. We would suggest sausages-our favorite dish-and lard-making, in their appropriate season, but in the meantime let us have something about butter, etc., etc. Home-made sausage, and how to make it, will be almost as good to us as a breakfast on it, as the poor beef sausage we get in town is a discredit to all butchers, and wholly without relish, and worthless as

to the money paid for it.

The husband of this lady ranks amongst the best farmers of the State, and we have often appealed to him to make the *Planter* the medium for communicating to his brother farmers some of his practical ideas. As yet he has not heeded our request. Is it from natural, or even commendable modesty? We think not, for he ought to know that editors have a way of covering the tracks of their correspondents. Is it from an indifference to the great subject of agricultural improvement, except within the bounds of his own fields? We know not. Then why?—Ed. S. P.]

#### DIVERSIFIED RURAL INDUSTRIES.

CHARLOTTESVILLE, VA., February 19, 1883.

Messrs. McDonald & Lee:

In diversifying our industries we are simply laying the foundation for a prosperity that will be lasting. The old Commonwealth is becoming noted for something else besides being the greatest tobaccoproducing State, and she can well afford to surrender to her rivals the laurels in that line and be content with brighter ones won in other fields.

As manufactures are extended and our iron and coal mines developed, and our wines and fruits are supplied to the markets of the world, and our choice timber is utilized,—this will become more and more manifest, until we reach a prosperity little dreamed of under the old *regime*. The trite apothegm, "He who who makes two blades of grass grow where one grew before," might well be paraphrased in favor of one who developes a new and paying industry, if it be one which benefits his fellow men

As we are here in Virginia confessedly unable to compete at present with the virgin soils of the West in the cultivation of grain for other than home consumption, and are also being crowded pretty closely by the competition of western farmers in some other productions, it behooves us to see if we have not compensating advantages in other directions. The writer has long believed that we have; and that we only need to arouse ourselves to reap the benefits.

Hop-growing for instance, is just now one the most remunerative of agricultural pursuits. I grant that this is exceptional by reason of the failure of European crops; yet there are such great advantages in favor of this particular pursuit in Virginia, that I fancy they need only be named to be appreciated. The writer can speak from personal experience, for he has in a small way grown hops, and was only deterred from entering into it largely because of his large interest in another special and new industry-that of grape-growing and the general cultivation of fruits. These advantages will be briefly enumerated: First, the quality of our hops is unsurpassed; second, land well adapted to hop culture is cheap; third, the expense of poles in very many localities is but a trifle compared with the cost in New York-upon many farms the labor of getting them being the limit; fourth, labor to gather the crop would cost less than half, and that is the heaviest item anywhere after planting and poles are provided; the fifth and greatest of all the advantages lies in the earlier maturity of the crop, and the peculiar nature of the production. 'I he cured hop gradually diminishes in strength, so that at two years of age it is comparatively of little value.

At one year of age it is worth much less than the fresh hop. The Virginia grower of this cash production coming into market two or three weeks earlier than his competitors, would get the market price, plus the increased value of fresh hops over yearlings. This alone is an advantage equal to 50 per cent., one year with another.

Such a year as the present, with exceptional high prices, it might be vastly more than that. It is believed that Piedmont Virginia is admirably adapted to hop-growing. Perhaps sections of the Valley are also. Some doubt is felt as to the Tidewater section. Its adaptability might be ascertained without large outlay in any section.

But, Messrs. Editors, there are other avenues, attention to which should be called, and with your permission I will in a future article show that if we but reach out we may reap—in the field of honey production, for instance. There is more pure nectar lost every year in the forests and fields of Virginia than would twice supply all her people with the sweets they consume and which are now produced in distant fields.

And yet in another direction lies an attractive field awaiting attention. The osier willows can unquestionably be produced in unlimited quantities and more cheaply than elsewhere. All along our water courses are lands considered untillable, or at least untilled, where the osier would grow and produce wonderfully. This demand is practically unlimited. One tittle town in New York produces one thousand tons—and better still they are worked up at home and the manufactured products sent to the western markets. Thirty dollars per ton were paid for the crop green as cut. A visitor from that town, lately here, estimated from seeing mine that ten tons per acre could be grown here.

Large amounts of dry peeled willows are annually imported from Europe, and the price in New York city for peeled dry willows is about ten cents per pound.

J. W. PORTER.

IRRIGATION has not been largely practised in this country, and where it has been it does not prove profitable except for a few special crops like strawberries, which bring a large sum from a small area. Labor is too dear in this country for the adaptation of many of the methods successfully practiced in Europe, and irrigation is one of this class. Besides, in most sections, the annual rainfall is sufficient if due care is given to making a deep, mellow soil that will hold a heavy rainfall without washing the surface.

#### A NEW PLAN FOR KEEPING ROADS.

It is a well-known fact that the present system of keeping the county roads is both inadequate and expensive. That it is inadequate, every road almost in the Commonwealth bears indubitable testimony upon its every mile, and almost every rod. And that it is expensive, count the pay of all the overseers of the roads, and two days' work for every citizen over sixteen years of age, and see what the aggregate will be. A pretty snug sum, surely.

The present system does not keep the roads in even tolerable order for winter travel. It is time, then, to try some other plan. Now, it seems to us that the keeping of the roads, like the carrying of the mail and many other things, should be put out to the lowest bidder under a fixed maximum rate, and that the contractor should be required to keep his road up to a certain standard of excellence, or forfeit his pay. The county boards of supervisors should have the oversight of the roads without additional pay. A small tax of say fifty cents to the head on the voting population would, it is presumed, be ample to pay the several contractors, and the roads would be in good condition, and travel easy and pleasant all the year through.

By this plan, failure to keep the roads in order would result in direct pecuniary loss, every citizen would bear an equal share of the road tax without the annoyance of being dragged out to work the roads when he has something very important to do at home, and there would be no shirking of a disagreeable duty, as is now frequently done with impunity. There is no doubt we would get better roads, for there would be a disposition to see who would have the best stretch of road.—Index-Appeal.

#### SIR J. B. LAWES' EXPERIMENTS.

Editor Southern Planter,—Dr. Lawes' permanent field is an experimental one. From a journal of the Royal Agricultural Society of England, 1868, I quote as follows as to a 14-acre field at Rothamstead, on which wheat has now been grown for forty years in succession: "The field being divided into plots—I think twenty in number—some of which are unmanured, one receiving farm-yard manure every year, and the rest receiving each a different description or amount of artificial manure; the same description and amount of manure having been applied on the same plot each year, for now forty years. In all other respects the management is the same over all the plots each year, and as far as possible the same year after year. The result is that the difference in the quantity and quality of the produce from year to year is mainly due to the varying character of the seasons. Most of the plots are  $\frac{16}{10}$ ths of an acre each." As to thin seeding, Mr. Mechi, of Tiptree Hall, Essex, England, states that he grew from one peck to the acre in 1864, 58 bushels per acre, straw not weighed.

[The foregoing communication is from an English gentleman who has recently settled in Virginia.—Ed. S. P.]

#### AMERICAN FRUIT FOR ENGLAND.

Consul King, writing from Birmingham to the State Department's says: Large quantities of American produce continue to be sold here, and many American "notions" are to be found. One or two firms seem to do a good business in selling American stoves and ranges; and I think that the dealers in American meat find the prejudice against it has generally disappeared, now that, for a time, the supply has been uncertain.

I have spoken before of American apples and have suggested more careful packing, but I venture to urge this again. These apples are generally admitted to be better than European apples, and the taste for them is general, yet several dealers here have told me that they must cease to deal in them, because they arrive in such a condition that it is necessary to put a price upon the few that remain sound which purchasers object to paying.

I have frequently wondered if our grapes, by careful packing, might not compete with Spanish grapes in the English markets Enormous quantities of Spanish grapes are sold in this country. Very fair ones can be bought at retail at sixpence a pound. They come carefully packed in sawdust, but they are tasteless, and I feel sure that if American grapes could be offered here in as good condition, the variety, and superiority, and individuality of their flavor would recommend them, even at a slightly higher price —Scientific American.

[This is a lesson for American producers and dealers in fruits, which we hope they will profit by.—ED. S. P.]

#### ALBEMARLE FARMERS' CLUB MEETING.

Wednesday last was the regular monthly meeting, and there was a pretty full attendance of the ablest farmers of the community. F. Hugh McCullough was on hand for the first time since his accident.

The usual routine being through, unfinished business was called for, and Mr. Clark read a petition proposed to be presented to the Legislature at its next meeting, and kindly prepared by our representative, the Hon. John B. Moon, on the subject of "Texas Cattle Fever," which having been approved, was laid on the table for signatures.

The next matter was the Autumn Show, and Mr. Clark read a letter to him from Ashton Starke, Esq., of Richmond, offering to give a plow to the best young gentleman plowman under the age of 23, which was accepted with thanks. Mr. Clark also stated that a ladies' prize would be given, Mrs. Hy. Gantt having promised her assistance, for the best show of flowers exhibited in the form of table decorations—that is, as they might be arranged on a dinner or supper table.

Then followed a very interesting address by W. Gordon Merrick, Esq., on "Grasses," which the Southern Planter would do well to obtain, and which elicited quite a lively discussion among the members, and Messrs. Leech and Cocke briefly narrated their experience. A vote of thanks closed the proceedings.

[We clip the above from the Scottsville Courier. We should be glad to have Mr. Merrick's essay on "Grasses," and anything else this Association of Albemarle farmers may send us.—Ed. S. P.]

#### Editorial.

#### LAW AND FARMING.

We were met on the street a few days ago by a friend of the legal profession, who rather twitted us on our occupation as an agricultural editor, and said: "Nothing was ever made at farming." We replied, that we were once a lawyer with fifteen years' experience and a good practice, and we quitted the law to become a farmer, and had never regretted the act; and further, that if we could take those fifteen years devoted to law from our present age, we would be now guiding or directing the plow-handles, and leave to another our editorial chair. But as it is, we think we can now better serve the business of agriculture by writing of, than the practice of it.

It is to our mind very strange that this apothegm-"Nothing is made at farming"—has taken so strong a hold on the minds of men engaged in the professions of law, medicine and divinity; and, indeed, of the merchants, tradesmen and manufacturers of the country. As to the men of the professions, they may hold themselves above the occupation of a farmer from a feeling of superior education and social position; and yet they are wrong in this: there is no higher education required, or social distinction more worthy, than that of an educated farmer. They judge by the masses, or to say a majority of farmers, who, it must be admitted, do not strive to elevate their calling by a proper education of their children or themselves, and, by consequence, social qualifications. As to merchants and tradesmen, they ignore the life and business of the farm, because their dispositions lead them to seek occupations which they regard as less laborious, and which will bring them money each day, whilst at the end of the year they may be far behind a good farmer in substantial comforts and real profits.

If "nothing is made by farming," the whole of the farmers, or about two-thirds of the people, would be bankrupt. It cannot be said that the farmers work and delve and produce large results towards the general wealth of the country, and that the products of their labor are wholly lost to them; and yet, such a declaration is involved in the apothegm quoted. Such a proposition is really preposterous; for if true, it would lead to the speedy bankruptcy of every nation on the globe, as well as the starvation of the whole of mankind. The truth is, that agriculture sustains and supports every other occupation, and the wealth of every nation is greatest in proportion to its agricultural

١

production. The people must live by food. This is an inexorable law of nature; and this food must come from the tillage of the earth, which brings forth grains for bread and fruits for eating, with the incidental rearing of animals whose flesh is also food. Balance the account as you may, and these products of the farmer's labor must control and underlie all others. Then why depreciate an occupation on which so much depends? Educate it and elevate it to all that it deserves, and it cannot be regarded as a menial or even unprofitable profession.

The true principle which should influence every liberal minded citizen outside of a farm, and his duty as well, is, that he should encourage the farming pursuit in every possible way. Its profits may be, and are, small, in comparison with high-feed lawyers, and doctors, and high-salaried divines, the stock speculators, large and monopolied manufacturers; but still, they are the *drops* which make up an ocean of wealth to the nations of the earth.

There are some prominent reasons, and a number of less consequence, why the profits of farming are apparently, and in most cases really, small. The most important of these reasons are embodied in the words—imperfect cultivation, imperfect manuring, and imperfect rotation. These branches of culture in their perfect, or improved condition, bring to the farmer full, or increasing, profits. It is not within the scope of this article to discuss those subjects, and they are mentioned only for the purpose of awakening an interest in their consideration by farmers individually, and by farmers' clubs.

Another of these reasons is, individuality and the need of co-operation, as in other occupations and professions. The formation of neighborhood associations for the discussion of crops, the best methods of culture, the value and best methods for disposing of products, arrangements for correspondence with similar associations, and just and judicious legislation in respect to agriculture, are all means by which farmers may be consolidated in interest, protected in their rights, enabled to learn one from another, and thus secure the legitimate profits of their labor and investments.

THE German carp is undoubtedly the best fish for farmers. Its advantages are that it grows rapidly, is an easy keeper, and will live in ponds so warm in summer that other fish will die. In winter it burrows in the mud, neithor making nor losing growth. A pond of four square rods will supply a family with fish. The female spawns in May and June, and one has been known to lay half a million of eggs.

#### INCUBATORS AGAIN.

The subject of artificial incubation is somewhat new to many readers of the *Planter*. It being an admitted fact that fowls can be hatched in this way, and in much larger numbers than by the natural process from a given number of laying hens, many questions are presented to the minds of inexperienced people; such as the construction and cost of an *incubator*, its management, the care of the chicks, etc. Having received a number of enquiries on all, and several of these questions, and having no practical or reliable information of our own, we have endeavored, in the interest of our enquiring readers, to procure it from others.

We were favored in the early part of the year with a copy of a book, sent us by its author, C. E. Thorn, associate editor of the Farm and Fireside, published at Springfield, Ohio, which is entitled the Complete Poultry Book, and we made a brief notice of the same in our issue for January. Not knowing of any better authority, we addressed a letter to Mr. Thorn asking his experience in respect to incubators, and have his reply, from which the following extracts are given: "I would repeat the doubts expressed on page 43 of my Poultry Book, that any of the patented incubators are materially better than a home made one, kept in a warm room or cellar. I quote the following from a practical poulterer who gives his chief attention to poultry raising, being a breeder of Plymouth Rocks: 'The Eureka Incubator, manufactured and sold by J. L. Campbell, West Elizabeth, Pa., will give as good satisfaction as any I ever saw; but there is not one man in a thousand who can get good results out of any of thein. They are very complicated, necessarily so, and it requires a genius to run one successfully."

The author, Mr. Thorne, in his book, gives his views of the general principles of artificial incubation as follows:

"The Chinese and Egytians have, for thousands of years, had the secret of hatching eggs without the intervention of the hen. Indeed, it would seem almost a matter of course that the inhabitants of tropical countries should early have learned this art, from watching the method by which the eggs of turtles, alligators, etc., are incubated, being simply buried in the warm sand of the river's bank. As early as 1750 the French scientist, De Reaumur, perfected a process of artificial incubation, which, though successful, was not practicable for ordinary purposes. During the past twenty years, however, the attention of poulterers has been freshly drawn to this question, and now the number of appliances for artificial incubation bids fair to equal the patent bee-hives.

"The essentials of a successful incubator are three: an equable heat of about 105 degrees; sufficient moisture in the atmosphere to prevent an undue evaporation from the egg; and ventilation." \* \* \* \*

"It has been found that the mercury may rise to 110 degrees without injury to the eggs, provided it does not remain at that point more than a very few minutes, or it may sink as low as 50 degrees, for a correspondingly short time; but should it remain below 100, or above 106 for many hours, all the labor expended upon the lot of eggs which the incubator may then contain will have been thrown away, while, as will be seen, it requires a very delicate instrument to quickly appreciate the difference between these degrees of heat.

\* \* \* \*

He then gives a description of what may be termed a home-made incubator, except the galvanized iron tank which must be procured from a tinner, or worker in galvanized iron; and this is supposed to do as good work as the more costly and patented machines. As we have not the illustrations given in the book, we have made some verbal changes which refer to them. He says:

"Have a pine case made somewhat like a common chest, say three feet square. About a foot from the floor of this case, place brackets, and on a level with these screw a strong cleat across the back of the case inside. These are to support the tank. The tank should be made of galvanized iron, three inches deep and otherwise proportioned to fit exactly within the case and rest upon the brackets and cleat. The tank should have a top or cover soldered on when it is made. At the top of this tank in the centre should be a hole an inch in diameter with a rim two inches high, and at the bottom, towards one end, a faucet for drawing off the water. When the tank is set in the case, fill up all the chinks and cracks between the edges of the tank and the case with plaster of Paris to keep all fumes of the lamp from the eggs. Fill the tank at least two inches deep with boiling water. To find when the right depth is acquired, gauge the water with a small stick. Over the top of the tank spread fine gravel a quarter of an inch thick; over this lay a coarse cotton cloth. Place the eggs on the cloth, and set a kerosene safety-lamp under the centre of the tank. The door of the lampcloset must have four holes for ventilation, otherwise the lamp will not The lamp-closet is the space within the incubator under the Turn the eggs carefully every morning and evening, and after turning sprinkle them with quite warm water. Two thermometers should be kept in the incubator, one half-way between the centre and

each end; the average heat should be one hundred and five degrees. If the eggs do not warm up well, lay a piece of coarse carpet over them. If they are too warm, take out the lamp and open the cover for a few minutes, but do not let the eggs get chilled. If they should happen to get down to ninety-eight or up to one hundred and eight degrees, you need not think the eggs are spoiled. They will stand such a variation once in a while; but, of course, a uniform temperature of one hundred and five degrees will secure more chickens, and they will be stronger and more lively. In just such an incubator as this one I have described, I hatched over two hundred chickens two years ago "

"Several forms of artificial mothers, however, have been invented—and most of them, of course, patented—of which the inventors claim that they far surpass the natural mothers, in that they do not drag their chicks through the dew, nor trample them to death, nor cover them with vermin; all of which, no doubt, are positive advantages, but in practice these advantages have been offset by the lack of the instinctive care of the mother hen. The artificial mother may frequently be used

to advantage, however, in supplementing that care.

"The essential points of the artificial mother are a sheep-skin tanned with the wool on, or a piece of buffalo rove or similar material, fixed with the wool side down upon a frame which will hold it just high enough for the chicks to creep under, and which may be raised to suit their growth; and a system of pipes, or a water-tank similar to that used in the incubator, placed over the sheep-skin, and warmed as in the incubator. The 'mother' should also be placed in a room warmed with a stove, for the more easy regulation of the heat.

"While the incubator and artificial mother are certainly not what is claimed for them by some of the more sanguine of their advocates—especially those who have a pecuniary interest in selling them—there can still be no doubt that they may be made of great service in the poultry yard, in the hands of persons who have the time and natural adaptitude necessary to give that close and judicious attention to the details of their management which is absolutely necessary to success."

Since the foregoing was written, we have had the opportunity for conversing with a gentleman, living near Richmond, who has had some experience with incubators. He says, "there is no difficulty in the hatching, but the greatest trouble, in the winter months, is to supply the artificial mothers." These, of course, protect the chicks from undue cold and consequent death, and thus become the most important factor in artificial incubation. Chicks, if hatched in November, December, January and February, and properly reared, will come early upon the spring market and command a good price and a good profit. In our climate there are but few weeks, or even days, when, in the months named, the artificial motherhood could not be conveniently provided. A room of sufficient size, properly lighted by the rays of the sun, and at night and in cloudy and cold weather heated by a stove, and supplied

by the *mothers* described in the last paragraph we have quoted from the *Complete Poultry Book*, or others any ingenious lady could devise, would seem to be sufficient to secure success; but we think in our climate the pipes mentioned will not be needed.

Now that the subject is fairly under discussion, we hope that some of our enterprising lady readers will make experiments, which cannot cost them much if they should meet with failure, but if with success, they will be largely compensated.

The *summer* hatching by the same process would, it is reasonably supposed, be attended by much less trouble, and result in a large increase in the number of fowls hatched and reared, as the hens may be kept *laying* and the incubator kept *hatching*, with but little need for the artificial mother.

The New York World of 28th February gives the following:

"Mr. Henry Stewart, who has had several years' experience with incubators, considers it an easier matter to hatch the chickens than to rear them afterwards. He believes many failures from patent incubators arise from unnecessary attentions, such as turning the eggs every day and frequently moistening them. While he does not state that turning and moistening eggs results in any harm, he does say that the less they are handled when once in the incubator the better will be the results. He discourages attempts in this direction without the proper accommodations and appliances for keeping the young chicks in a desirable temperature with means for ventilation, &c. He advises as food for the first few days coarse oatmeal steeped in warm water or milk, this to be followed later on with coarse corn meal and bread crumbs."

We take, also, from the Pacific Rural Press, San Francisco, of the 3d March, the following:

\*Editors Press,—As a friend of J. M. Halstead, who has watched with great interest from the first his experiments with his incubator, permit me to say a word in reply to Mr. T. J. Long's letter of February 17th: In the hands of Mr. Halstead, and also in the hands of any one with patience and experience, his incubator as now constructed is an undoubted success. Miss Jennie Gates, of East Oakland, recently hatched 94 chicks from 120 eggs—her first attempt. C. P. Higgins, 514 Fifteenth street, East Oakland, has had the incubator for six or seven months. His wife told me this morning that they had been successful in every way. I asked for the results of one hatch; she said they had hatched 97 out of 110, raised the chicks and made money selling them at market rates. J. Sims, of Iron House Ranch, Antioch, has had two machines for months, and has made them pay him well. I have strong, healthy chickens of all ages in my yard, hatched by Mr. Halstead and Mr. Sims, and they are both cleaner and more healthy than those raised by hens, and I have had a much smaller percentage of deaths than I had with hens. Mr. H. suggested a little alteration in

the incubator to Mr. Long, but he refused to make it.—E. Woolfenden, East Oakland, Cal."

The Halstead incubator referred to, may be beyond the reach of those who are as far as we are from the Pacific coast, but it serves to illustrate that the principle of artificial incubation is not only practicable, but profitable when careful, or pains-taking people, supervise and control the operation.

#### PIEDMONT AGRICULTURAL SOCIETY.

The eleventh annual meeting of the stockholders of this society was held at the office of the secretary, in this town, on Saturday ltst, the 2nd inst. There was quite a full representation of stock present, either in person or by proxy. The most important business transacted was the election of officers and action in regard to the next annual exhibition.

Maj. Daniel A. Grimsley was unanimously re-elected president of the society, and Mr. A. R. Alcocke, by a like vote, was re-elected secretary. A committee of three was appointed with directions and

power to name the Executive Committee for the ensuing year.

As to the date of the fair, the prevailing opinion seems to be that it will be decided to have it somewhat earlier than usual, probably a month earlier, so as to bring it about the middle of September, instead of the middle of October as heretofore. For many reasons, this appears to be an excellent idea. The first, and one of the most important, of these is that in September the chances of bad weather are considerably less than in October. The weather gave our last fair a severe set back, but for which, it was conceded, the attendance would have been larger than ever before. Another reason is that this time is more favorable for a good display of farm and garden products, a majority of which have no chance in October. It is probably true that the agriculturists have more work on hand in September than in October, but this consideration is overbalanced by the others.

We clip the above from the Culpeper Exponent, and take the occasion to say that we have long been of the opinion that the agricultural Fairs of our State should be held a month, or more, sooner than they are. The State Fair should be held in the second week of September, and the District Fair should precede and succeed it by weeks, so as to bring them all within the period embraced between the 10th of August and 20th September.

We may briefly mention some of the reasons for this opinion: First: There will be better exhibitions of the products of the State. The agricultural, horticultural, and floral products, which should be an inter-

esting feature, cannot be made so in the latter part of October. The Fairs are, therefore, ridiculously meager in products of this kind, and must rely on live stock, speed trials, side-shows &c. to interest the visitors. As to live-stock, speed trials, agricultural implements, house-hold products, ladies fancy work, &c., it can make but little difference as to time. Nothing would more enliven our Fairs than a full exhibition of the products of the farm, garden, orchard, vineyard, and the beautiful flowers which are in season in the early fall. Some may say that September would be too early for cattle, but how is it then that all the great cattle-producing States, north and west, hold their Fairs in August and September?

Second: As to the State Fair we may say that the second week in September is the time when the merchants from the South, in many cases with members of their families, are moving northward to purchase their goods, and such an interesting event as a State Fair would arrest their attention and stop them for a few days in our capital city, and lead in many cases to new business relations.

Third: Between the 1st August and 20th September there is a letup in farming work. The wheat has been cut, threshed, and generally sold, corn is laid-by and left to stand for gathering time in the late fall-months, and the hay has been secured and housed. There are, then, but two operations which would demand the farmer's time and interfere with a day-or-two's visit to an Agricultural Fair. In the grain districts fallowing for wheat must go on, and in the tobacco section some plants have to be cut, the worms and suckers have to be looked after; and some other occupations which we do not now take time to think of; but we put it squarely to those farmers who may feel themselves hampered by fallowing and tobacco-work to say whether they can not so arrange as to spare a day or two to attend an Agricultural Fair.

Before the question as to the time of holding the State Fair for the present year is definitely settled, we appeal to President Wickham and the Executive Committee to re-consider their action with the committees of the city organizations. The latter, we think, for reasons briefly given, were right in their efforts to secure the holding of the State Fair in September.

ZEAL without humility is like a ship without a rudder, liable to be stranded at any moment.

CHEERFULNESS is also an excellent wearing quality. It has been called the bright weather of the heart.

## The Southern Planter.

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

#### TERMS OF ADVERTISING.

PAGE RATES.

	1 Mon.	3 Mons.	6 Mons.	12 Mons.
One-eighth page		\$ 7 00	\$12 00	\$ 20 00
One-fourth page		12 00	22 50	40 00
One-half page		25 00	45 00	80 00
One page		40 00	80 00	140 00

#### COLUMN RATES.

	1 Mon.	3 Mons	& Mons.	12 Mons.
One inch Two inches Three inches Half column One column	\$ 1 50	\$ 4 00	\$ 7 00	\$12 00
	3 00	8 00	14 00	24 00
	4 00	10 60	20 00	40 00
	5 00	12 00	25 00	50 00
	9 00	25 00	45 00	80 00

Special rates for cover.

Reading notices, 25 cents per line, of brevier type.

#### EDITORIAL NOTES.

Subscriptions in arrear.—As there are a large number of our subscribers who are still behind in their payments, we will call their attention to the fact in this general way, and express the hope that they will remit the amount of their dues.

Bills will be sent with the May number of the *Planter* to all who may then be owing.

To our readers in North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, Tennessee, and Kentucky, in each of which States the *Planter* has a good circulation, we appeal for communications on subjects of interest to the agriculture of their respective sections. In mentioning these States we do not mean to ignore others, for we have readers throughout the Union, and hope all will help to make the *Planter* acceptable whereever it may go.

We have seen some of our articles copied as far as Oregon and California, and do not wish to see the sphere of usefulness of our journal circumscribed.

COMPLIMENTARY.—It is not our habit to parade before the public what kind friends in their correspondence, or the Press in its notices, may say of us. We may be excused, in this instance, when we say that the following reference to the *Planter* came in a private letter to a friend who has kindly furnished it; and we take occasion to thank the author for his interest in our work.

"The Southern Planter, American Agriculturist, and Home and Farm come regularly. Brains in all of them—more in the Planter than ever before. My salutations and cordial thanks to Col. Knight. The paper is worth fifty times its cost. The Jan. No is worth \$5 to any farmer who will read, think and practice. One article in it I would not take \$50 for, viz., "Experiments Conducted by Prof. Page, of the university." In fact, the Planter, if taken and read by the farmers of Virginia, its value to them would be beyond computation. All, or nearly all, its well written papers are exactly adapted to the present wants of the Virginia farmer. The Col. is working up the paper so well, I will try and get him a lot of subscribers at our next Grange meeting on 1st Saturday in April."

AGRICULTURAL AND DOMESTIC IMPLEMENTS AND MACHINES, FRUIT TREES. GRAPE ROOTS. FLOWER SEEDS AND PLANTS, SMALL FRUITS, SUCH AS STRAWBERRIES, &c.

We have on our advertising accounts a number of the articles enumerated, which we desire to close out at reduced prices to our subscribers whilst we pay full rates to the advertisers. These contracts for advertisements payable in commodities were made by our predecessors, and hence our desire to close them up. Orders sent to us will be filled directly from the factories or nurseries.

MOTHER SWAN'S WORM SYRUP.—Infallible, tasteless, harmless, cathartic; for feverishness, restlessness, worms, constipation. 25c.

Ladies will Find Relief—from their headache, costiveness, swimming in the head, colic, sour stomach, restlessness, etc., by taking Simmons Liver Regulator. It is mild, safe and pleasant.

THE VIRGINIA HISTORICAL SOCIETY—THE "DINWIDDIE PAPERS."—The Virginia Historical Society, in the due execution of its mission, desires to announce the early publication of The Records of the administration of Robert Dinwiddie, Lt. Governor of Virginia 1752–1757, a volume of which, to make 600 octavo pages, is being printed. It will be illustrated with steel portraits and wood cuts, and bound in cloth.

The fullest elucidation of the text has been diligently essayed in definite foot notes on the material and social condition of the colony at the period, and much never before in print, is given. A special feature is the biographical notices of English and American officials and of the individual actors mentioned in the Records, including the family names of Allen, Ashby, Ashe (N. C.), Baylor, Byrd, Blair, Buchanan, Bullitt, Belcher (Mass. and N. J.), Bronaugh, Corbin, Chew, Carlyle, Cresap, Crogan, Calvert, Carter, Callaway, Dick, Dobbs (N. C.), DeLancey, Eyre, Fleming, Fry, Fairfax, Fitzhugh, Fontaine, Grymes, Gooch, Glen, Gist, Harrisson, Hogg, Hamilton (N. J., Md., Pa., and S. C.), Hunter, Hanbury, Innes, Jefferson, Johnson, Lewis (E. and W. Va.), Ludwell, Morris, McCarthy, Maury, Marye, Martin, Muse, Mercer, Mason, Norris, Ogle, Patton, Pepperell, Peters, Preston, Read, Rowan, Randolph, Ramsay, Robinson, Robertson, Rose, Sharpe, Shirley, Starke, Spotswood, Stith, Stephen, Trent, Tasker, Tucker, Talbot, Waggener, Wraxall, Wright, and numerous others in whose tives will be deeply interested.

The annual dues of the Society are \$5; no entrance fee; it is representatives will be deeply interested.

Upon the completion of 'Dinwiddie Papers' the concluding volume of the "Spottswood Letters" will be printed in uniform style. The edition of 1,000 copies is distributed only by exchange among learned bodies and to the members of the Society. None of the Society's publications are sold. The annual dues of the Society are \$5; no entrance fee; Life mem-

bership \$50.

Correspondence is solicited with those interested in the objects and welfare of the Society, as well as the names of others who may be addressed in such behalf.

R. A. BROCK, Cor. Sec. Va. His. So, y.

Richmond, Va., March 10, 1883.

We invite attention to the above circular of Secretary Brock, and hope his request as to correspondence will be complied with.

[Ed. S. P.

SWINDLING ADVERTISERS.—In our last issue there was a letter from Bumpass P. O., calling attention to the fact of the writer having been swindled by one T. M. Smith, of Fresh Pond, N. Y. in the sale of pure-bred eggs. We have since received a note signed by three respectable citizens of Hanover County who have been cheated in the same way by the same person. As these parties purehased the eggs by reason of having seen Smith's advertisement in the Planter in the spring of last year, we feel called on to report the facts, so that others may be warned.

J. W. CARDWELL & Co.-Their advertisement in this issue of the Planter will indicate the line of their principal work. This firm dates back more than a third of a century, the senior partner being a continuous member. We have had many dealings with it, and know that it is reliable in every respect. For many years its threshers and separators have been of acknowledged worth. The Little Giant Hydraulic Cotton Press is, we think, of great value to cotton planters. Their Cotton Seed present announcement, but we can take Oil Mills we had not heard of until their them on full faith. No farmer will be disappointed who may purchase the machines made by this firm.

Tuckahoe Farmer's Club.—We have had several invitations to attend the meetings of this club, but our engagements have prevented. Our heart and feelings are with them in their good work in the cause of agriculture. Our only complaint is, that they have not more frequently made the *Planter* a medium for communicating to other farmers of the State what their work is; and thus, as one of their members, Mr. Watt, frequently says, "make themselves useful as well as ornamental."

FOR THICK HEADS.—Heavy stomachs, bilious conditions,—Wells' May Apple Pills—anti-bilious, cathartic. 10 and 25c.

UNNECESSARY MISERY—by billious and and dyspeptic sufferers who neglect to take Simmons Liver Regulator. Headache, constipation, piles, colic and indigestion, are cured by this pure, vegetable remedy.

HENRY T. MILLER & Co.—The advertisement of this firm calls to our mind many pleasant memories of our early life. We have known Henry Miller from his babyhood. His father is a cherished friend and was a schoolmate, and his grandfather, a wealthy merchant and farmer, was our most liberal patron when we followed the profession of the law.

Henry is an artist in the line of his business, and his goods are of the best quality, at low prices.

The best of it is, that this firm makes its own goods, from selected materials, and employs twenty to thirty girls and women, by which a living for themselves and their families is made.

All who buy of H. T. Miller & Co will get their money's worth, and at the same time be dealing with agreeable and reliable gentlemen.

T. W. WOOD, SEEDSMAN,—of this city, sends us an advertisement of a fertilizer, for which he is agent, for garden and farm use.

The phosphatic principle which underlies, as it would seem, "the standard superphosphate, ammoniated dissolved bones, and U. S. Superphosphates," ought to make it a comparatively cheap fertilizer.

THE VIRGINIA STATE FAIR GROUNDS.—
We call attention to the advertisement of
Mr. Sprague, the tenant of the grounds,
who offers his services for training horses
on the track for running, or trotting, and
breaking of colts, &c. He also offers the
track free for evening or morning drives.

We call attention to the advertisement of King's fine ground plaster.

BILIOUSNESS.—Millions of us are bil ious. We are a bilious race. Half of us are born bilious, with a predisposition to dyspepsia. The best known remedy for biliousness and indigestion is Simmons Liver Regulator. Try it.

"Buchu-Paiba."—Quick, complete cure, all annoying Kidney, Bladder, and Urinary Diseases. \$1. Druggists.

A TREATISE ON THE HORSE AND HIS DIS-EASES.—Published by B. J. Kendall & Co. Revised Edition.

We consider this a valuable book, and are of opinion that every owner of a horse should possess a copy. The book contains thirty-five engravings showing the different positions assumed by sick horses, and in simple, comprehensive terms gives the symptoms and treatment of the various diseases to which horses are subject, and which any person of ordinary intelligence will understand. It contains quite a large number of receipts, with some remarks on "a few of the medicines used for horses." This small and cheap treatise is recommended, and will prove satisfactory to every horseman. M. D.

We have submitted the book to good medical authority, and are warranted thereby in commending it to the attention of farmers, as evidenced by the above notice by a distinguished army surgeon.

We renew our offer in our last issue to send post-paid a copy to each new subrcriber to the *Planter*, and to each old subscriber who will pay his subscription for the current year prior to 1st May.

This premium does not apply to persons whose subscriptions are paid at clubbing rates.

THE Art Amateur and the Ladies' Floral Cabinet. come regularly to our table, and it affords us pleasure to study and admire them, but it is hard to come up from our plain agricultural work and speak of them. So we sent copies to an appreciative ladyfriend for such comments as she should make. She says they afforded her a great deal of pleasure, and of the Art Amateur, we quote her words: "Though I neither paint or sketch, I still take a lively interest in the work of others, and this magazine must prove invaluable to hundreds of people who do. Many of its designs are beautiful and original, so that it is not only useful to the Amateur but to the Artist, and in a high degree beneficial to many other people, inasmuch as it helps to educate their tastes." The Floral Cabinet she equally commends.

"ROUGH ON RATS."—Clear out rats, mice, roaches, flies, ants, bed-bugs, skunks, chipmunks, gophers. 15c. Druggists.

#### MAGAZINES RECEIVED.

The March number of the North American Review contains a number of articles of sterling interest. Among them, "money in elections," by Henry George; "the subjugation of the Mississippi," by R. S. Taylor, &c.

The Harpers—Monthly, Weekly, and Young People—are regular and appreciated visitors.

The Century and St. Nicholas come regularly also, and the former contributes to the edification of matured people, whilst the latter is especially interesting to the young.

The Popular Science Monthly we also acknowledge.

The North American Review is especially rich in its March number.

#### CATALOGUES, &c.

Shenandoah Valley Academy, Winchester Va., Dr. C. L. C. Minor, Principal.

The Mapes Complete Manures and crop reports.

Dunreith Nursery, by E. Y. Teas, Dunreith, Indiana.

Ashly Phosphate Company's Almanac and Primers.

Garden and Flower Seeds, Plants. &c by, J. A. Buel & Co, Springfield Ohio.

E. Roe's Small fruit farms and nurseries, Cornwall-on-Hudson, N. Y.

Corn and Potato Manual, by J. C. Vaughn, Chicago, Ill.

Johnson & Stokes, implement catalogue, Philadelphia.

Howard Gelletti, Perennial Plants, Orchards, Shrubs, Climbers, &c. Southwick, Mass,

Strawberry Culture, by Mathew Crawford, Cuyahega Falls, Ohio.

Last, though not least, Jno: Saul's Catalogue of Plants, Flowers, Vines, &c. for the Spring of 1883. Our arrangements with Mr. Saul will enable us to supply his stock to our subscribers at reduced rates, as we pay him in advertising at full rates. J. Saul, Washington, D. C.

And the *Pomona* Nursery of Wm. Parry, Parry P. O., New Jersey. Mr. P. is an occasional advertiser in the *Planter*, and we have found none more trustworthy.

SOUTHERN EXPOSITION—at Louisville, Ky., commencing 1st August, 1883, and continuing one hundred days.

We again call attention to this exhibition of the soil-products, manufactures, &c., of the Southern States. Like that at Atlanta, Ga., it will be of great advantage to the states of our section producing the great staples. cotton, tobacco, and grain. with minerals superadded, and whilst not sectional in feeling or purpose; will do much to advance the interests of the whole country.

HIRAM SIBLEY & Co. of Chicago, Illinois, and Rochester, N. York.

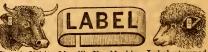
We have received from these great seedsmen a box of their choice garden seeds, which we have divided between two friends in the interior of our State, who we hope will report to us in respect to their qualities, &c. They send us also their Manual of Farm and Garden Seeds, containing much of importance and interest to the farmer in respect to cultivation, manures, &c. Also their Manual on flax culture for seed and the fibre.

WAITING A CLAIMANT.—A challenge is offered to any one who can produce a case of torpid liver that will not succumb to the influence of Simmons Liver Regulator, taken regularly by direction.

Genuive: prepared only by J. H. Zeilin & Co.

LEXAS Siftings."
The great Humorous We exclusioned = 5 Pa copy s'old by all Newsdealers.

WANTED AGENTS both Male and Female, for of America," It takes wonderfully. Price, \$2, worth \$3. Address FORSHEE & McMAKIN, Cincinnati, Ohio.

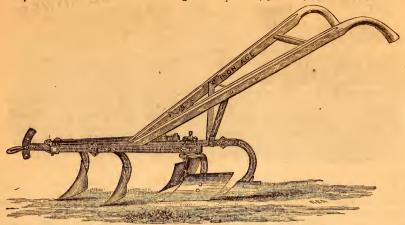


Dana's White Metallic Ear Marking Label, stamped to order with name, or name and address and numbers. It is reliable, cheap and convenient. Sells at sight and gives perfect satisfaction. Illustrated Price-List and samples free. Agents wanted.

C. H. DANA, West Lebanon, N. H.

d

THE BEST IS THE CHEAPEST.—There are low-priced imitations. We keep and sell the Genuine "Iron Age" Cultivators, perfectly made with steel hoes.



#### Cultivator. as a

The Most Popular and Efficient Cultivator ever put into the Field.

It may appear like extravagant praise, but we fully believe no implement has ever been introduced that has become at once so widely and deservedly popular as the genuine IRON AGE. We keep always in stock a full line of the best cultivating implements, and are the sole agents for the IRON AGE CULTIVATOR and BROWN WALK-ING CULTIVATOR, which we guarantee to be the best of all the WHEEL CULTIVATORS. We are also sole agents for all the PLANET, JUNIOR, Goods. including Cultivators, Horse Hoes, Garden Drills, Wheel Hoes, &c. Send for Special Planet, Jr., Catalogues.

mh tf

H. M. SMITH & CO., 1532 Main Street, Richmond, Va.

The best and most reliable Anti-Dyspeptic Medicine ever offered to the Public.

For more than seventy years this medicine has maintained its high reputation. remedy was ever offered to the public sustained by such torcible certificates of wonderful remedial properties. Presidents of the United States, Judges of the Supreme Court, Governors of States, United States Senators and Physicians of the highest standing are among those who attest their value from personal tests.

E. R. Beckwith, Pharmacist, now manufactures these invaluable pills from the Original Recipe of his grandfather, Dr. John Beckwith.

40 Pills in a Box-Price, 25 Cents.

Sufferers from DISORDERED STOMACH or DERANGED LIVER, with their attendant complications, will find relief from these pills. Sold by Druggists Generally.

E. R. BECKWITH, Pharmacist.

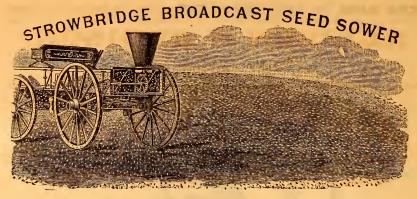
fe tf

Cor. Market and Halifax Sts., Petersburg. Va.

S For the MERCHANT on our New Plan
For the MARKET GARDENER
For the PRIVATE FAMILY Grown by ourselves on our own Farms

Handsome Illustrated Catalogue and Rural Register FREE TO ALL. MERCHANTS, SEND US YOUR BUSINESS CARDS I'R TRADE LIST.

DAVID LANDRETH & SONS, SEED GROWERS, PHILADELPHIA



Millions of dollars worth of SEED and VALUABLE TIME have been lost for the want of a perfect Broadcast Seed Sower that would do its work rapidly and well. The "STROWBRIDGE" fills the great want, exactly. The seed is not thrown up into the air to be driven by the wind in all directions, but it goes directly to the ground where wanted. It is the CHEAPEST, SIMPLEST and BEST BROADCAST SEED-SOWER in the market. A common-sense, labor-saving machine. It sows perfectly all kinds of Wheat, Rye, Flax, Barley, Oats, Buckwheat, Peas, Corn, Hungarian Millet, Clover, Timothy; also Plaster, Lime, Salt, Guano, Ashes, and all the various Phosphates—in fact, everything requiring broadcasting—and does it more evenly and better than by any other method. other method.

## THE "STROWBRIDGE" IS FULLY WARRANTED TO DO AS REPRESENTED.

Read the following, which are sample testimonials, of which we have received hundreds from farmers who have used them and know what they are talking about:

have used them and know what they are tarking about:

The well-known firm of W. M. Fields & Bro., Stock Breeders and Importers, Cedar Falls, Iowa, write us as follows: "We have used the Broadcast Seeder for several seasons, with entire satisfaction. Have seeded annually over two hundred acres of different kinds of grain. We consider the Seeder an indispensable implement to any farm for either seeding any kind of small grain or seeds. It is a wonderful labor saver, and materially facilitates the farm work. We cheerfully recommend it to every one.

Yours respectfully,

W. M. FIELDS & BRO,

Willowedge Farm, Fort Dodge, Iowa.

ASHTON STARKE, ESQ:

RICHMONL, VA., January 17, 1883.

Dear Sir,—I have tested the Strowbridge Broadcast Seed Sower in sowing rye, clover seed and plaster, and am fully satisfied with its work. It is all you claim for it.

W. J. LYNHAM.

#### PRICE, \$26.-

Manufactured by the DES MOINES MANUFACTURING COMPANY, Des Moines, Iowa.

SOLD IN RICHMOND, VA., BY

## STARKE, Gen'l Agent.

At whose warerooms the Broadcaster can be seen in operation.

JULIEN BINFORD.

L. B. TATUM.

## W. D. BLAIR & CO. (ESTABLISHED 1829).

## Dealers in Fancy Groceries, Teas, Wines and Liquors

And Manufacturers' Agents for KEY WEST and other Fine Cigars,

#### 1109 Main Street, RICHMOND, VA.

Proprietors of the Celebrated "B-SELECT." "GLENWOOD," "MONTROSE" and "ALPHA" WHISKIES; also, HARVEST WHISKEY in Great Variety.

## ALLISON & ADDISON,

MANUFACTURERS OF

# FERTILIZERS

## "STAR BRAND" SPECIAL COMPLETE MANURES

FOR EACH OF THE FOLLOWING CROPS:

TOBACCO, WHEAT, COTTON, CORN, OATS, VEGETABLES AND GRASS.

Pure Flour of Raw Bone, Acid Phosphate, Ground Phosphate Rock, Sulphuric Acid.

-DEALERS IN-

German Kainit or Potash, Nitrate of Soda, Plaster, &c.

OFFICE-1322 Cary Street, FACTORY-Opposite Rocketts,

RICHMOND, VA.

All orders and communications promptly attended to.

fe tf

WM. H. PALMER, Pres't.

JOHN OTT, Sec'y.

JOHN ENDERS, Vice-Pres't.

## THE SOUTHERN FERTILIZING COMPANY

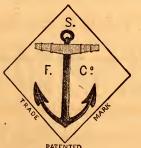
[ESTABLISHED 1866.]

### RICHMOND, VIRGINIA.

Factory: 2001, 2003, 2005, 2007 Dock Street; Office: 1321 Cary Street.

MANUFACTURE THE CELEBRATED

"ANCHOR



BRAND

**FERTILIZERS** 

For COTTON, TOBACCO, WHEAT. CORN, OATS, PEANUTS, GARDEN TRUCKS, POTATOES, TURNIPS, and other Root Crops.

These goods have had the fullest test of time, and continue to do the work expected of them. Will be glad to answer inquiries from farmers. Address

fe 3t

SOUTHERN FERTILIZING CO., Richmond, Va.

## SPAVINS, SPLINTS, CURBS, RING-BONES

#### All Similar Blemishes.

AND REMONES THE BUNCH WITHOUT BLISTERING.

For man it is now known to be ONE OF THE BEST, if not THE BEST LINIMENT EVER DISCOVERED.



#### SAVED HIM EIGHTEEN HUNDRED DOLLARS.

DR. B. J. KENDALL & Co.: B. J. KENDALL & Co.: ADAMS, N. Y., January 30, 1882. Gents.—Having used a good deal of your Kdndall's Spavin Cure with great success, I rhought I world let you know what it has done for me. Two years ago I had as speedy a colt as was ever raised in Jefferson county. When I was breaking him, he kicked over the cross-bar and goi fast and tore one of his hind legs all to pieces. I employed the best farriers, but they all said he was spoiled. He had a very large thoroughpin, and I used two bottles of your Kendall's Spav n Cure, and it took the bunch entirely off, and he sold afterwards for \$1.800. I have used it for bone spavins and wind galli, and it has always cured completely said left the beauters. and left the leg smooth

and left the leg smooth

It is a splendid medicine for rheumatism. I have recommended it to a good many, and they all say it
does the work. I was in Witherington & Kneeland's drug store, in Adams, the other day and saw a very
fine picture you sent them I tried to buy it, but could not; they said if I would write to you that you would
send me one. I wish you would, and I will do you all the good I car.

Very respectfully,

E. S. LYMAN.

Send address for Illustrated Circular which, we think, gives positive proof of its virtues. No remedy has ever met with such unqualified success to our knowledge, for beasts as well as man.

Price, \$1 per bottle, or six bottles. All druggists have or can get it for you, or it will be sent to any address, on receipt of price, by the proprietors.

Dr. B. J. KENDALL & CO., Enosburgh Falls, Vermont.





# THRESHING MACHINES.

## Cardwell's Thresher and Separator.

The SIMPLEST, CHEAPEST and BEST THRESHING MACHINES made, mounted on two or four wheels, as may be desired. Threshes the grain clean from the straw, and separates it perfectly. SEND FOR CATALOGUE.

## "Little Ciant" Hydraulic Cotton Press.

The BEST AND MOST POWERFUL PRESS MADE; is quick and durable, and gives entire satisfaction—makes a 600-pound bale with ease.

## COTTON SEED OIL MILLS.

SMALL AND LARGE. SEND FOR CIRCULAR.

Manufactured by J. W. CARDWELL & CO., Richmond, Va.

[ap 3t]

What Farmers and Truckers want to make GOOD PAYING CROPS is

## FIRST-CLASS FOOD FOR THEIR CROPS

AT A REASONABLE PRICE.

It is with pleasure I announce that I have been appointed agent for Lister Bros' celebrated Fertilizer, which from personal experience I believe is equal to any in the United States.

-PRICES.

- ANALYSES ON APPLICATION. -

#### TESTIMONIALS.

Mr. T. W. Wood:

This is to certify that I have during the last nine years used on an average 8 tons per year of Lister Bros' ground bone on farm and garden products, which has given me the best results. I consider it superior to any I have ever used.

J. P. BADENOCH.

Mr. T. W. Wood:

BROOK HILL, HENRICO Co., VA., February 28, 1883.

It is with pleasure I testify to the splendid effect of Lister Bros' Bone Fertilizer on Corn, Oats, and all kinds of Vegetables. I consider it the best I have used.

WILLIAM LINDSAY, Manager for J. Stewart, Esq.

MR. T. W. Wood:

I have used Lister Bros' Fertilizer on general crops, and found it first-class.

The cabbages I used it upon last year grew so rapidly as to surprise my neighbors.

WILLIAM LINDSAI, Manager 1073, Stewart, Esq.

HENRICO Co., VA., February 23, 1883.

The cabbages I used it upon last year grew so rapidly as to surprise my neighbors.

Hoping to be favored with your orders, and also for any kind of seeds you may require, I remain, yours respectfully,

T. W. WOOD, Seedsman,

Corner Sixth and Marshall Streets and 1530 Main Street, RICHMOND, VA.

## THE STATE OF MISSISSIPPI.

The Hand-Book of the State of Mississippi now ready for distribution, containing a Geographical, Geological and Agricultural Description of the State. Sent free of charge to all who desire to learn something about Mississippi. Address E. G. WALL, Commissioner of Immigration and Agriculture, Jackson, Hinds Co., Miss.



## HONEST OF

If you are sick or ailing, no matter what your complaint, write to us and we will send you ON TRIAL one of our large ELECTRIC MEDICATED PADS to suit your case, provided you agree to pay for it fit cures you in one month. If it does not cure you it costs you nothing to try it. Different pads to cure Dyspensia, Rhenmatism, Liver and Kidney Diseases, Piles, Lung Diseases, Asthma, Ostarrh, Lame Back, Ague, and many other diseases. Marvelous cures being daily made in cases where all other treatments have failed. Prices very low. Remember these are not little medals, but large Pads made of Roots and Herbs, combined with Electricity. We do not ask you to buy them blindly, but merely to try them at our risk. Book, giving prices and full particulars, free. Address at once ELECTRIC PAD M'F'G CO., BROOKLYN, N. Y.



ap 1t

#### ELKHART KHART CARRIAGE AND HARNESS MANUFACTURING C Manufacturers of all Styles of Carriages, Buggies, Spring Wagons, Single and Double Harness.



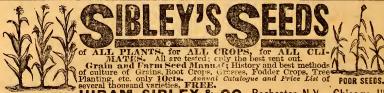
We have no agents, and if what you order is not if what you order is not satisfactory we pay all expenses. Ao. 42 Buggy (see cut.) is just the same as others sell at \$130. Top Buggies at \$90 fine as usually sold for \$125 to \$140. Our Harness are all No. 1 Oak Leather. Single, \$8.50 to \$20. Everything fully warranted Refore buying send for our Illustrated 50 page caralogue FERE. Address W. B. PRATT, Sec'y, ELKHAKT, INDIANA.



We Retail at Wholesale Prices, Ship anywhere with privilege of examining BEFORE BUYING.

ap 4t





HIRAM SIBLEY & CO. Rochester, N.Y., Chicago, III.



The Planet Jr. Seed-Drills, Wheel-Hoes and Horse-Hoes are without an equal in the world I We have never before off them so perfect, or in such variety, nor published so clear and full a Descriptive Catalogue of them. We gnarantee it to intevery one who plants seeds or cultivates the soil. It is a beautiful descriptive work, of thirty-two pages, with over Thirty? Engravings, showing the tools at work among Oniona, Beans, Celery, &c., and also contains a chapter on the proper Cultivate of frope. Send your own address, and ten neighbors' most interested in Parming and Gardening, and we will mail it of topo. Send your own address, and ten neighbors' most interested in Parming and Gardening, and we will mail it of the PLANET JR. GOODS, Nos. 127 and 129 Catharine St., Phila.,

jan6t

## STONO-PHOSPHATE COMPANY,

CHARLESTON, S.C.

WE OFFER TO THE PLANTERS

# SOUTH CAROLINA PHOSPHATE ROCK

GROUND TO A POWDER AS FINE AS WHEAT FLOUR-

## "PHOSPHATE FLOATS,"

FOR APPLICATION TO

#### GRAIN, GRASSES, AND FOR COMPOSTING.

The Rock is subjected to FREQUENT ANALYSIS by the Company's Chemist, and is of the BEST QUALITY.

For TERMS, etc., address the Company.

SAMPLE sent by mail upon application.

de12m

## ASHLEY PHOSPHATE CO.

-::CHARLESTON, S. C.::-

SOLUBLE GUANO - ... ... Highly Ammoniated.

DISSOLVED BONE— ... ... Very High Grade.

ACID PHOSPHATE— ... ... For Composting.

ASH ELEMENT— ... For Cotton, Wheat, Peas, &c.

FLOATS—Phosphate Rock, reduced to an Impalpable Powder by the Duc Atomizer, of Highest Grade. SAMPLE sent on application.

SMALL-GRAIN SPECIFIC—Rich in Ammonia, Phosphoric Acid, Potash, Magnesia and Soda.

#### GENUINE LEOPOLDSHALL KAINIT.

The above FERTILIZERS are of very high grade, as shown by the Official Reports of North Carolina, South Carolina and Georgia.

For TERMS, ILLUSTRATED ALMANACS, &c., address

THE COMPANY.

N. B.-Special inducements for Cash Orders.

[6mjy]

RURSERVISE

Chiladelphia Lawn Mower, Cahoon Broadcast See I Sower, Matthews' Seed Drills, and other fir-t-class goods. Exergiting for the Lawn, Gar-den, Greenhouse or Nursery, We WARRANT everythin

SOLE AGENTS.

e WARRANT everything as represented.

Fully illustrated Catalogue sent free, Rochester, N.Y. Chicago. "



THE BEST STRAWBERRY

-abonanza for Fruit Growers South
and West, as it withstands droughts
and dsunburn best of all. Extremely
vigorous grower, immensely productive, berries extra large, bright red,
ripens extra early, ship 300 miles or
over. Send to HEADQUARTERS. Colored picture and deserptive price list free. Also 200
varieties Grapes, Raspberries, etc. Kieffer, Peach
Trees, etc., at lovest rates. My Hand-Book on Fruit
Culture, 30c. R. H. HAINES, Moorestown, N. J.

SOUTHERN ACCLIMATE FIGS.
TERED JERSEYS for sale at fair prices.
Eight registered Jersey cows, from 4 to 8 years old, bred to choice registered bulls. Also imported bull JERSEY EXPRESS No. 5771; solid color, black points; decreated December 2018, 1570 and benefits of the solid programme of the soli JERSEY EXPRESS No. 5771; solid color, black points; dropped December 20th, 1879; and several registered bull calves, from 6 to 9 months old, two from imported sire and dams, and both solid, fancy colors. Also, 6 pure bred unregistered Jersey heifers, from 6 to 16 months old, all from good butter stock. Address ROWE'S CO-OPERATIVE STOCK FARM, Fredericksburg, Va. jantf

A NEW AND VALUABLE TREATISE ON SUGAR CANES, (including the Minnesota Early Amber) and their manufacture into Syrup and Sugar. Although comprised in small compass and furnished free to applicants, it is the BEST PRACTICAL MANUAL ON SUGAR CANES that has yet been published.

BLYNYER MANUFACTURING CO

Cincinnati O,

branufacturers of Steam Sugar Machinery, Steam Engines Victor Cane Mill, Cook Sugar Evaporator, etc.

PROOF BUILDING MANILLA

This water-proof material resemble for roofs, outside walls of building of plaster. Catalogue & W. H. samplesfree.(Estab.1866) W. H. FAY & CO. N. J.

"THE BEST IS CHEAPEST." SHERS SAW-MILLS, Clover Hullers ENGINES, THRE

(Suited to all sections.) Write for FREE Illus. Pamphlet and Prices to The Aultman & Taylor Co., Mansfield, Ohio. ap 4t

## Are you DEAF?

FERRIS' PESTORATIVE will invariably cure YOU. It is endorsed by all home and foreign physicians and scientists. It cures where all other means fail. Don't neglect to send for circulars; it will pay you. Ask YOUR DRUGGIST FOR IT. EDWIN FER-RIS & CO., Piker Building, Cincinnati, O.



lar and price-list.

Premium Chester White, Berkshire and Poland China Pigs, Fine Setter Dogs, Scotch Shepherds and Fox Hounds, bred and for sale by ALEX. PEOPLES, West Chester, Chester county, Pa. Send stamp for circufe 1y

## ERI

EAST MAIN STREET.

Solicits an examination of his

#### oreign Goods Fine Stock of l

FOR FALL AND

UNEXCELLED FOR VARIETY, STYLE AND QUALITY by any offered in this market. Will be made by skilled workmen in the LATEST AND MOST APPROVED STYLES at PRICES THAT MUST SUIT.

N. B.-SHIRTS, COLLARS and CUFFS made to order as heretofore and satisfaction gnaranteed.

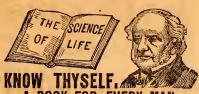
# Extra quality.

sep-9t

MAKE HENS LAY An English Veterinary Surgeon and Chemist, now traveling in this country, says that most of the Horse and Cattle Powders sold here are worthless trash. He says that Sheridan's Condition Powders are absolutely pure and immensely valuable. Nothing on earth will make hens lay like Sheridan's Condition Powders. Dose, I teasy notated to 1 pint food. Sold everywhere, or sent by mail for 8 letter-stamps. I. S. Johnson & Co., Boston, Mass.

delyeot

## MANHOOD SEEDS



A BOOK FOR EVERY MAN. YOUNG, MIDDLE-AGED AND OLD.

The untold miseries that result from in-discretion in early life may be alleviated and cured. Those who doubt this assertion should purchase and read the new medical work published by the Peabody Medical Institute, Boston. entitled the Science of Life: or, Self Preservation. It is not only a complete and perfect treatise on Manhood, Exhausted Vitality, Nervous and Physical Debility, Premature Decline in man, Errors of Youth, etc., but it contains one hundred and twenty-five prescriptions for acute and chronic diseases, each one of which is invaluable, so proved by the author, whose experience for twenty-one years is such as probably never before fell to the lot of any physician. It contains 300 pages, bound in beautiful embossed covers, full gilt, embellished with the very finest steel engravings, guaranteed to be a finer work in every sense—mechanical, literary or professional—than any other work retailed in this country for \$2.50, or the money will be refunded. Price, only \$1.25 by mail. Gold Medal awarded the author by the National Medical Association. Illustrated sample

sent on receipt of six cents. Set d now.

Address PEABODY MEDICAL INSTITUTE, or Dr. W. H. PARKER, No.
4 Bulfinch street, Boston, Mass. The author may be consulted on all diseases requiring skill and experience.

THOROUGHBRED

#### SHORTHORN CATTLE.

MERINO SHEEP and BERKSHIRE Bred and for sale, at moderate S. S. BRADFORD. PIGS. prices, by Culpeper, Va. ja 1-1y

with the people are always on the lookout for chances to increase their carnings, and in time become wealthy; those nities remain in poverty. We offer a great chance to make money. We want many men, women, beys and girls to work for us right in their own localities. Any one can do the work properly from the first start. The business will pay more than ten times ordinary wages. Expensive outfit furnished free. No one who engages fails to make money rapidly You can devote your whole time to the work, or only your spare-moments. Full information and all that is needed sent free. Address STINSON & CO., Portland, Maine. land, Maine. jan1v

For the Farm and Garden. All varieties. Best quality. White Russian Spring Oats, Seed Potatoes, and all kinds of Grass and Clover Seeds Vegetable Plants. Descriptive Catalogues mailed free on application.

> T. W. WOOD, Seedsman, RICHMOND, VA.

Cor. Sixth and Marshall streets. Branch Store, 1530 Main street.

SAVE MONEY L. E. ery Farmer should have that 8 cts. per bushel can be saved the or Cotton by the near of a

THOMAS SMOOTHING HARPOW Also manufacture the Perfects P(LVR) LER which contains 72 sh rp steel blades, covering 10 feet at each sweep. Warranted the mest powerful Pulverizer ever invented. For pamphet containing illustrations of both machines at work, and hundreds of names of those who we and recommend them, address THOMAS HARROW CO. Geneva, N. Y.

Sawing Made Easy.



The New Improved MONARCH LIGHTNING SAW

Is the cheapest and best.
A boy sixteen years old can saw logs fast and easy, postal for Illustrated Catalogue containing testimonials and full particulars. A GENTS WANTED.
Monarch Lightning Saw Co., 163 Randolph St., Chicago.

## CHOICE SEED FROM SELECTED FRUIT.

RATTLESNAKE, (or STRIPED)
SCALY-BARK, (DARK GREEN.)
The Premium Watermelons of the World! Seed from choice crops of Richmond County, and from selected large melons of perfect qualities. Price, cunce 20 cents pound \$2.00. Postage 16 cents ner lb. Address
J. ALEXANDER,
Drug and Seed Store.

jan 4t

REST not, life is sweeping by, go and dare before you die, something mighty and sublime leave behind to conquer time. \$66 a week in your own town. \$5 outfit free. No risk. Everything new. Capital not required. We will furnish you everything. Many are making fortunes. Ladies make as much as men, and boys and girls make great pay. Reader, if you want business at which you can make great pay all the time, write for particulars to H. Hallett & Co., Portland, Maine.

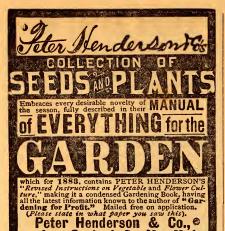


Garmore's Artificial
As invented and worn by him
perfectly restoring the hearing. Enitively deaffor thirty years, he hears with
them even whispers, distinctly. Are
not observable, and remain in position without aid. Descriptive Circular
Free. CAUTION: Do not be deceived
by bogus ear drums. Mine is the only
successful artificial Ear Drum manufactured.

JOHN CAPMON

JOHN GARMORE, Fifth & Race Sts., Cincinnati, O.

nov6t



ap 1t

35 & 37 Cortlandt St., New York.

Ninety-day yellow-dent, the earliest Dent Corn grown, 16-rowed. Originated in Northern Iowa Ripened perfectly in 1882, the worst Corn season in 25 years, in Northern Iowa, Nebraska, Illinois, New York, Connecticut, Vermont, etc. in some sections where Dent Corn before has been a total failure. GOOD SEED CORN IS SCARCE; SECURE THE BEST

GOOD SEED CORNIS SCARCE: SECURE THE BEST OUR Grain and Farm. Seeds Manual contains histories and directions for outline of Corn. Wheat, Bartley, Rye, Oats, Potatoes, Grasses, Ecots, and all Farm Crops, with descriptions of all new and standard varieties. Only 10 cents.

Sibley's Farmer's Atmanac, with valuable essays on special crops, 10 cents.

Annual Catalogue and Frice List of Flower. Veretable, Field and Tree Seeds and Plants, FREEL HIRAM SIBLEY & CO. Seedsmen, Rochester, N. Y. and Chicago, Ill.

1838 A 1883 Pomona Nursery.

5,000 KIEFFER'S HYBRID
50,000 in Nursery, propagated
No Buds or Scions taken from DWARFS,
NIGH'S SUPERB Strawberry, HANSELL Raspberry, Blackberries, New Grapes
and Currants. Fruit, Shade, and Ornamental Trees, Vines, and Plants in variety. Catalogue free.
WM. PARRY, Parry P. O., New Jersey.

ap 3t

## T. BURR'S

STANDARD

#### CARRIAGE REPOSITORY

1505 FRANKLIN STREET.

Custom-made work. Buggies, Phætons, Carriages and Farm Wagons at wholesale factory prices. All ap 1y work warranted.

GENTS can now grasp a fortune, Outfit worth \$10 free. Address E. G. RIDEOUT & CO., 10 Barclay St., N. Y.

BUY THE BEST!

## MILLER'S CME"

## NHIKI'N AND BRAWK

FINE DRESS SHIRTS a specialty. UNDERWEAR of all kinds ready made. or to measure at short notice. Write for printed blanks for self-measurement.

READY-MADE SHIRTS at from 75c. to \$1.75 each. Sent by mail on receipt of price, and six cents in postage stamps.

Our 75c "Acme" is the best shirt ever made for the money.

TRY ONE.

## H. T. MILLER & CO.,

MANUFACTURERS,

Cor. Ninth and Main Sts., Richmond, Va. [ap 61]

#### PAPER. WALL

FASHIONABLE DESIGNS

- FOR -

## PARLORS, HALLS, CHAMBERS, &c.

SAMPLES AND PRICES MAILED FREE.

#### H. BARTHOLOMAE & CO.,

MANUFACTURERS,

124 AND 126 WEST 33D ST., NEW YORK.

#### DR. HENRY FRŒHLING,

#### ANALYTICAL & CONSULTING CHEMIST

Laboratory: 17 South Twelfth Street, RICHMOND, VA.

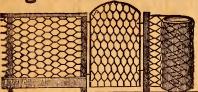
## RLIERSLIE FARM.

#### THOROUGHBRED HORSES.

Shorthorn Cattle, Cotswold Sheep,

AND BERKSHIRE PIGS Apply to R. J. HANCOCK, Overton, Albemarle county, Va. FOR SALE. june ly

## Sedgwick Steel Wire Fence | CHESAPEAKE AND OHIO RAILWAY



Is the only general purpose Wire Fence in use, being a Strong Net-Work Without Barbs. It will turn dogs, pigs, sheep, and poultry, as well as the most vicious stock, without injury to either fence or stock. It is just the fence for farms, gardens, stock ranges and railroads, and very neat for lawns, parks, school lots and cemeteries. Covered with rust-proof paint (or galvanized) it will last a life-time. It is Superior to Boards or Barbed Wire in every respect. We ask for it a fair trial, knowing it will wear itself into favor. The Sedgwick Gates, made of wroughtinos pipe and steel wire, dety all competition in neatness, strength and durability. We also make the best and cheapest All Iron, Automatic or Self-Opening Gate, also Cheapest and Neatest All Iron Fence. For Prices and Particulars ask Hardware Dealers or address the Manufacturers. Best Wire Streetcher and Post Sending Manufacturers. Rest Wire Streetcher and Post Sending Manufacturers. Rest Wire Streetcher and Post Sending Manufacturers. Richmond, Inc. fe ly

## COTTON SEED

## **NEW SORTS!**

JONES' IMPROVED PROLIFIC-long sta-

JUNES' IMPROVED PROLIFIC—long staple; has produced 2 bales per acre as a common crop; first prize at Atlanta Exposition. Pound per mail, 70c., bushel by freight or express, \$5.

MCKIBBIN HYBRID—short staple; yields of 1,500 and 2,000 lbs. and upwards per acre are reported; very branching; first prize for best 12 plants at Atlanta Exposition. Pound by mail, 70c.; bushel. \$5.

plants at Atlanta Exposition. Found by man, 70c; bushel, \$5. **HERLONG**—short staple; has been thoroughly tested throughout the South; 1½ bases per acre a common yield. Pound by mail, 45c; bushel, \$3. **OZIER SILK**—long staple; fine silky fibre; very branching; matures early; hardy; has yielded 1,400 lbs. of lint cotton per acre. Pound by mail, 45c; bushel, \$3.

1,400 los. of introduction per act.
45c; bushel, \$3.

Improved Varieties of Cow Peas and other Southern crops, are specialties. We carry the largest stock of Tested Seed for Market Gardeners of any Seed House. Send for catalogues.

HIRAM SIBLEY & CO., Seedsmen.

Chicago, Ill. Rochester, N. Y.

a week made at home by the industrious. Best' business now before the public. Capital not needed. We will start you. Men, women, boys and girls wanted everywhere to work for us. Now is the time. You can work in spare time, or you can give your whole time to the business. No other business will pay you nearly as well. No one can fail to make enormous pay, by engaging at once. Costly outfit and terms free. Money made fast, easily and honorably. Address True & Co., Augusta, Me. janly

For Hatching, from all the leading varieties of Poultry. Send stamp for large illustrated circular. Oak Lane Farm, Belcher-

Opened through the beautiful BLUE GRASS region of Kentucky to Louisville and Cincinnati. Connecting at these cities with all of the Great Lines of Railways diverging for

Indianapolis, St. Louis, Chicago, Kansas City, Nashville, Memphis, and all principal points West, South, and Southwest.

SOLID TRAINS with Pullman Sleeping Coaches, run through daily between Washington, Richmond, Charlottesville, Waynesboro, Staunton, Clifton Forge and Louisville and Cincinnati WITHOUT CHANGE.

#### SHORTEST & MOST DIRECT ROUTE

and the only route without transfers, Avoiding the uncertainty by other routes of making connections.

For rates and tull information, call on the nearest Chesapeake and Ohio agent, or

C. W. SMITH, Gen'l Manager.

H. W. FULLER, Gen'l Pass'r Agent.

## GRAPE VINES AND SLGAR MAPLES

I have some finely-rooted Concord Grape Vines I nave some finely-rooted Concord Grape Vines for sale. Price, \$4 per hundred; 60 cents per dozen, packed and delivered in Richmond. Also, a few Norton seedling—price, \$10 per hundred; \$1.20 per dozen. Now is the time to set out Sugar Maple, the most beatutful of all shade trees. They are from 5½ to 8 feet high, and finely rooted. Price, 75 cents for single one; \$6 per dozen, and \$40 per hundred. I have but a few left. 1 have but a few left.

Dr. THOMAS POLLARD.

fe tf 619 west Main St., Richmond, Va.

## The State Fair Grounds

Having rented the track and stables at these grounds, I will give personal attention to training of horses on the track, the breaking of colts and stallions to harness, and the standing of stallions, both trotting and thoroughbred, for the season. There are good facilities for grazing and watering stock. I have had twenty-eight years' experience in these matters, and acknowledge no superior.

Address A. E. SPRAGUE, mh fit

Exchange Hotel.

#### BELMONT

## Stock & Stud Farm.

I continue to breed Thoroughbred, Riding, Trotting, Light and Heavy Draft Horses. The best families of Shorthorn Cattle and Berkshire Swine for sale at prices and terms to induce sales without jockeying. Those stallions not sold early in the year may be farmed on sound business terms to suit clubs, individuals and patrons.
S. W. FICKLIN,

Near Charlottesville, Va.



ings. Advice by mail free.

Patents obtained through us are noticed in the SCIENTIFIC AMERICAN, which has the largest circulation, and is the most influential newspaper of its kind published in the world. The advantages of such a notice every

patentee understands.
This large and splendidly illustrated newspaper is published WEEKLY at \$3.20 a year, and is admitted to be the best paper devoted to science, mechanics, inventions, engineering works, and other departments of industrial progress, published in any country. Single copies by mail, 10 cents. Sold by all newsdealers.

Address, Munn & Co., publishers of Scientific American, 261 Broadway, New York.
Handbook about patents mailed free.





pederick's HAY & COTTON PRESSES, are sent anywhere on trial to operate against all other Presses, the customer keeping the one that suits best. No one has ever dared slicw up ary other Press, as Dederick Press, and thus sell without sinh to reselve the insurance of the pressure of the purchaser and swindle the purchaser and pressure of the purchaser o

P. K. DEDERICK & CO., Albany, N.Y.

DO NOT BUY

#### JERSEY RED PIGS

until you have read the price-list and testimonials of the herd which carried off the

#### Great Sweepstakes Premium

at the Virginia State Fair, and which is the largest herd South. Send for circular to

T. LOVELOCK.

Gordonsville, Va.

# DARBY'S

For the prevention and treatment of DIPHTHERIA, SCARLET FEVER, SMALLPOX. YELLOW FEVER, MALARIA, &c.

The free use of the Fluid will do more to arrest and cure these diseases than any known preparation.

Darby's Prophylactic Fluid, a safeguard against all Pestilence, Infection, Contagion and Epidemics.

Use as a Gargle for the Throat, as a Wash for the Person, and as a Disinfectant for the House.

## A CERTAIN REMEDY AGAINST ALL CONTAGIOUS DISEASES.

Neutralizes at once all noxious odors and gases. Destroys the germs of diseases and septic (putrescent) floating imperceptible in the air or such as have effected a lodgment in the throat or on the person.

#### PERFECTLY HARMLESS USE I INTERNALLY or EXTERNALLY. USED

J. H. ZEILIN & CO., Proprietors, Manufacturing Chemists, Philadelphia.

Price, 50 cents per bottle. Pint bottles, \$1. nov ly

## F. Stearns' No. 1 Fertilizer

#### To the Farmers of Virginia:

Gentlemen,—We continue to manufacture this SUPERIOR FERTILIZER, composed of PURE BONE MEAL (partially dissolved), ombined with FISH GUANO, ANIMAL MATIER, and POI-ASH (muriate).

ASH 'muriate).

We grind the bone and fish ourselves, and can vouch for its purity. Nothing can be better for tobacco and all spring crops, as testified to by the best farmers in Virginia who have used it. Price, \$10 per ton on board cars in Richmond. Our PURE BONE MEAL, ground fine, on hand, and for sale at the same price.

the same price.

Send in your orders at an early day, as our stock

will be limited. Address STEARNS & HALSEY, No. 15 Fifteenth street, Richmond, Va. FRANKLIN STEARNS, )
J. MORTON HALSEY.

#### Notice to Farmers!

In addition to my regular business, I am now grinding my "STANDARD" BRAND OF PLAS-TER, which is unequalled by any on the market, and which I intend shall become universally popuand which I intend shall become universally popular on its own merits. Having carefully selected my lump, I can furnish the best quality, and having the capacity for grinding fifty tons per day, I can give cousmmers the advantage of having it freshly ground, as I will not keep a supply on hand, but grind it after receiving orders on shortest notice. Price, &c., on apllication. 3400 to 3500 Williamsburg, avenue, Postoffice Box 1.

mh 3t

mh 1y

# Orchilla Guano for Corn!

## BEST AND CHEAPEST!

We desire especially to call the attention of farmers to the superior merits of Orchilla Guano as a Fertilizer for CORN. The advantages resulting from its use are not only an increased yield and better quality of corn, but its effect will be seen in the permanent

improvement of the soil, and in its benefit upon future crops.

Orchilla Guano has been used for corn quite extensively in Maryland and Pennsylvania for several years past with the best results, and also, to a limited extent, in some portions of Virginia during the last year very successfully, and we offer it again this year, feeling fully satisfied that a trial is all that is needed to convince the most skeptical that it is not only the cheapest but the best Fertilizer in the market.

#### CHEMISTS ENDORSE IT.

The Department of Agriculture of the State of Virginia, under the administration of Dr. J. M. Blanton, have recently undertaken the analysis of every brand of Fertilizer sold in the State. The Report of the work done in that respect, by Prof. W. I. Gas-COYNE, the well known Chemist of the Department, during the Fall Season of 1882, has just been published. It embraces the analysis of seventy-five different brands of Fertilizers, and certifies to the actual value of their several constituents as developed by the analysis. A reference to this Report exhibits the following remarkable results:

1. The actual value of most of these Fertilizers falls below the prices asked for them!
2. Where the actual value exceeds the price asked, the excess, in very few instances,

reaches 10 per cent.
3. In the case of ORCHILLA GUANO, the certificate of the chemist is "Actual value \$41.12," which is more than 50 per cent. over the price asked for it!

This official statement is only corroborative of similar results, furnished us privately by other chemists of high reputation in Virginia and elsewhere; notably Prof. Mallet, Dr. Dabney, Prof. Taylor and others. According to Dr. Dabney, the cash value of the sample analyzed by him, was \$43.97. Prof. Taylor's, by the same calculation, was

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

UNIVERSITY OF VIRGINIA, January 23, 1883. \* \* \* \* I have used Orchilla Guano very successfully on root crops, as you might expect from its high percentage of Phosphoric Acid. repeat what I have said repeatedly, that high-priced ammoniated fertilizers cannot be used in a large majority of the worn out lands in Virginia profitably, until those lands have been prepared by drainage, thorough tillage—the use of lime compounds and vegetable matter ploughed into the soil. Until the land is prepared thus, there is nothing to hold the nitric acid and ammonia in the soil, and it is carried off by the drainage and atmosphere before the crop can use it, which often results in no profit and no permanent improvement to the land. I have used the Orchilla Guano this fall on wheat. \* \* \*

Yours, &c.,

JOHN R. PAGE.

Send for our LITTLE BOOK containing the letters of scores of Virginia farmers, bearing testimony to the fact, that the Lime Compound which has done them the best service, is ORCHILLA GUANO, with its 40 to 50 per cent. of Bone Phosphate of Lime.

## ooldridge, travers & co.,

-IMPORTERS-

64 Buchanan's Wharf.

BALTIMORE

CHAS. G. SNEAD, Importers' Agent, RICHMOND. Va.

# WHEN YOU PLOW WATT CHILLED

THEY ARE SUPERIOR IN EVERY ESSENTIAL OF

## STRENGTH, DURABILITY, ECONOMY, LIGHT DRAUGHT,

PERFECT BURIAL OF VEGETATION, THOROUGH DISINTEGRATION OF THE SOIL, FREEDOM FROM CHOKING. Warranted to be as represented, and sold subject to approval by trial. Return at our expense if not satisfactory.

WATT No. D E and No. A B W PLOWS are the favorites in the Cotton States. They are the only perfect combined Turning and Cultivating Plows made. The BEST and the CHEAPEST for Corn, Cotton, Tobacco and Vegetables.

Send for Illustrated Circulars.



## FARM WAGONS

made of the best material and fin ished in the most attractive manner. We are prepared to furnish at prices as low as any first class Wagon can be sold. Every Wagon warranted for twelve months. All expecting to purchase Wagons will find it to their interest to examine our stock and prices.

CORN SHELLERS for HAND OR POWER, separating Corn from Cob, and guaranteed to shell clean. FAN ATTACHMENTS for blowing out chaff and dust.

## RICHMOND CHAMPION CORN PLANTER

WITH OR WITHOUT FERTILIZER ATTACHMENT.

It is driven entirely by cog gearing, and therefore entirely dispenses with the very unsatisfactory and vexatious worm gearing, which has given so much trouble heretofore by cutting and wearing out. Has removable seeding plates, so that the farmer can use one with holes, adapted to the size of the grains of corn he is planting; or for Beans, Peas or Broom Corn. These seeding plates can be changed in a moment by any farm hand. The Fertilizer Attachment is so simple and so complete in itself that any farmer can attach or detach it in a few



moments at his pleasure. Every Champion Corn Drill is made so that the Fertilizer can be put on at any time when the farmer wants it. The fertilizing material is dropped behind the drop tooth, and in front of the covering shares, thereby insuring a proper distribution and covering of the fertilizing material. By this admirable arrangement, it prevents the fertilizing material getting on the seed plate and clogging up and preventing its proper working. ORDER EARLY. SATISFACTION GUARANTEED.

ALL INTERESTED in the use and sale of IMPROVED IMPLEMENTS AND FARMING TOOLS, including Adjustable Iron-Frame Cultivators and Horse Hoes, Walking and Riding Cultivators, Mowers, Reapers and Threshers, Wheel Rakes, Farm Wagons, Grain Drills, Broadcast Seed Sowers, Harrows of various patterns, Plows, Plow Castings, and plow material of all kinds, are invited to send for Special Circular and Price-List.

WATT & CALL, - Richmond, Va.

j: