

THE SOUTHERN PLANTER

DEVOTED TO

AGRICULTURE, HORTICULTURE, LIVE STOCK AND THE HOUSEHOLD.

T. W. ORMOND, - - - - PROPRIETOR.
 W. C. KNIGHT, - - - - EDITOR.
 A. J. GARY, - - - - BUSINESS MANAGER.

43d Year. OCTOBER, 1882. No 15.

CONTENTS :

Farmers and Farming in Virginia in the Olden Time.	169
Is it best to Dozen or Shock Wheat directly after the Reaper or Cradle?.....	174
An Enquiry.....	175
Grapes.....	178
Successful Experiment with a Hydrogen Locomotive.....	179
What an Old Farmer Thinks.....	180
Borax Injection for Meat Preservation.....	181
Sunflower Seed for Poultry.....	182
A New Variety of Oats.....	183
Man's Treatment of the Horse.....	183
Drainage.....	184
An Old Farmer's Ideas.....	185
Fauquier County.....	186
Bill Arp's Musings.....	187
A New Method of Growing Corn.....	190
Experiment with Potatoes.....	191
Another New Cereal.....	192
What Fancy Farmers Have Done.....	194
Johnson Grass.....	195
Bedding for Cows.....	197
Something for the American People to Consider.....	198
Horses.....	199
Common Sense in the Poultry Yard.....	200
Sheep: Their Types and Characteristics; Fine Wool—Saxon Merino.....	201
Carbonized Bran for Packing.....	203
Why?.....	204
The Wages of Farm Labor.....	205

EDITORIAL :

The State Fair: Its Postponement and Its Prospects, 206; The *Planter* as an Advertising Medium, 207; The Virginia State Agricultural Society, 207; What we Saw in the Valley, 209; Silk Culture, 210; Ancient English Oaks... 211

EDITORIAL NOTES :

To our Richmond City Subscribers; Tobacco Notes; A Word to the Weekly Papers; J. E. Doherty, Merchant Tailor; Willard Lottery Scheme.....212, 213
 Medical Notes for the Household..... 213
 Reports, Catalogues, etc..... 214
 Household Receipts—Summer Drinks..... 216
 Special Notice to Our Subscribers..... 217
 Poultry, 217; Inoculation of Animals, 218; Farming in Rhyme..... 219

**THRESHERS—FARM ENGINES—DRILLS.
LOW PRICES.**

RICHMOND
Farm-Implement House.

“NEW EMPIRE” Threshers and Cleaners.

Iron cylinders—warranted in every respect.

“PEERLESS” Threshers and Separators.

Simplest machines made.

“GRAY” Threshers and Cleaners.

Cheapest Threshers in this country.

“ONEIDA”
“PAXTON” } **FARM ENGINES.**

Most complete and warranted full power, at prices lower than we have ever sold engines

“SUPERIOR,” “HAGERSTOWN,” “UNION” Grain Drills

WITH ALL ATTACHMENTS.

The celebrated CHAMPION BARB FENCE WIRE, which is fast taking the place of the old styles. Pricks but does not lacerate. Call and examine any of the above machines.

ASHTON STARKE,
RICHMOND, Va.

Office: 1422 Main Street.

MAN
Sept—11

Chester Strawberry Plants, 75c. doz., \$4 per 100. Valuable information in free Catalogue. Address F. I. SAGE & SON, Wethersfield, Conn.

COTTON IS KING BUT OUR ENGINE IS KING OF COTTON!

invaluable patented improvements found in no other ENGINES in the world. For Pamphlets and Price List, (also for SAW MILLS), address THE ALTMAN & TAYLOR CO., Mansfield, Ohio.

Sept—26



Sept—31

BEST MARKET PEAR!

I obtained my First Grafts of this valuable pear direct from the Originator, and now offer the Largest Stock of Trees in the Country. Also other trees, vines and plants, including all the Best Sorts of STRAWBERRIES, RASPBERRIES, etc. Catalogue FREE. J. S. COLLINS, Moorestown, N. J.

H. A. S. HAMILTON,
Fishersville, Augusta County, Va.,
BREEDER OF PURE

Southdown Sheep.

My flock took seven premiums at Virginia State Fair in 1881. Am prepared to furnish buck of any age at reasonable prices. my 15—11½

CHEAPEST BIBLES Ever Furnished Agents. 2590 Illustrations; 170 extra features. Both Versions New Testament 75 CENTS **AGENTS WANTED** FORSHEE & MCMACKIN, Cincinnati, O.

15—

—THE—

SOUTHERN PLANTER.

DEVOTED TO

Agriculture, Horticulture, Live Stock and the Household.

Agriculture is the nursing mother of the Arts.—XENOPHON.

Tillage and pasturage are the two breasts of the State.—SULLY.

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

43RD YEAR.

RICHMOND, OCTOBER, 1882.

No. 15.

FARMERS AND FARMING IN VIRGINIA IN THE OLDEN TIME.

No. 3.

[What Hugh Jones, Esq., says of Virginia in 1724.]

“The most southerly (of the four principal rivers of Virginia) is called *James River*, and the next *York River*, the land in the latitude between these rivers seeming most nicely adapted for *sweet-scented*, or the finest *Tobacco*. For 'tis observed that the goodness decreaseth the farther you go northward of the one and the southward of the other. But this may be (I believe) attributed in some measure to the seed and management, as well as to the land and latitude, for on *York River* is a small tract of land called *Digges's Neck*, which is poorer than a great deal of other land in the same latitude, by a particular seed and management is made the famous crop known by the name of *E. Dees*, remarkable for its mild taste and fine smell.

“The land between the logs and stumps (of new ground) they hoe up, planting tobacco there in the spring, inclosing it with a slight fence of cleft rails. This will last for tobacco for some years, if the land be good, as it is where fine timber or grape vines grow. Land when hired is *forced* to bear tobacco by penning cattle upon it; but cow-pen tobacco tastes strong, and that planted in wet, marshy land is called *non-burning* tobacco, which smokes in the pipe like leather, unless it be of a good age.

When land is tired of tobacco, it will bear Indian corn or English wheat, or any other European grain or seed, with wonderful increase. Tobacco and Indian corn are planted in hills as hops, and secured by *worm-fences*, which are made of rails supporting one another very firmly in a particular manner.

"Tobacco requires a great deal of skill and trouble in the right management of it. They raise the plants in *beds*, as we do cabbage plants, which they *transplant* and *replant* upon occasion after a shower of rain, which they call a *season*. When it is grown up they *top* it, or nip off the head, *sucker* it, or cut off the ground-leaves, *weed* it, *hill* it; and when ripe, they *cut* it down about six or eight leaves on a stalk, which they carry into airy *Tobacco Houses*; after it is withered a little in the sun, there it is hung to dry on sticks, as paper at the paper mills; when it is in proper *case* (as they call it), and the air neither too moist nor too dry, they *strike* it or take it down, then cover it up in *bulk*, or a great heap, where it lies until they have leisure or occasion to *strip* it (that is, pull the leaves from the stalk), or *stem* it (that is, take out the great fibres), and *tie* it up in *hands*, or *straight-lay* it; and so by degrees *prize* or press it with proper engines into great hogsheads, containing from about six to eleven hundred pounds, four of which hogsheads make a *ton* by dimension, not by weight. Then it is ready for sale or shipping.

"There are two sorts of tobacco, viz: *Oronoke*, the stronger, and *Sweet-scented*, the milder; the first with a sharper leaf like a fox's ear, and the other rounder and with finer fibres; but each of these is varied into several sorts, much as apples and pears are; and I have been informed by the Indian Traders that the Inland Indians have sorts of tobacco much differing from any planted or used by the Europeans.

"The colony of Germans at Palatines are encouraged to make wines, which by the experience (particularly) of the late Col. Robert Beverley, who wrote the History of Virginia, was done easily and in large quantities in those parts, not only from the cultivation of the wild grapes, which grow plentifully and naturally in all the good lands thereabouts, and in the other parts of the country, but also from the Spanish, French, Italian and German vines, which have been found to thrive there to admiration.

"Again; as for wine, in all parts of the country grapes grow wild and thrive extremely, but at present they are almost only food for the birds, few attempts having been made for the cultivation of them and making wines, except that of *Col. Robert*

Beverley, which was thus: He having read, seen, studied, and enquired much concerning the nature of vintages, reduced his knowledge to practice for his better experience and certainty, in planting a small vineyard; and having great prospect that this would answer his purpose, he bragged much of it in publick; but being bantered by several gentlemen, he proposed to give each of them a guinea down, if they would give him ten, if he made a certain number of gallons of pure wine from that vintage. They accepted the proposals, and he distributed (I think) one hundred guineas, made the wine according to the terms agreed on, and won his wager; which money he afterwards employed in planting more and greater vineyards, from which he made good quantities of wine, and would have brought it to very high perfection had he lived some years longer.

“His whole family, even his negroes, drank scarce anything but the small wines, and the strong is of a good body and flavour. The red that I have often drank, to me it seems to have the taste of Claret and the strength of Red Port. Not only red grapes, but also white ones of all sorts from Europe, produce and grow there to admiration; an instance of which may be seen at Col. William Robinson’s, upon Rappahannock River, who has planted out abundance; and I don’t question but what he and other gentlemen there will follow Mr. Beverley’s pattern, which, if brought to perfection, might tend to an extraordinary good account, and not only prove profitable to the planter, but also advantageous to Britain, even if we could make but small quantities of wine there; but much more beneficial would it be if there could be made abundance, as in all probability there might be, since the climate and the soil seem so extremely well adapted for that purpose, especially up towards the hills and mountains, which at present lie waste. Would it not be very advantageous to our nation if we could not only raise much wine for our own use, but also sell great quantities to our neighbors? And I know but two trifling obstacles in the way; the one is, that the clusters of grapes rarely ripen together, which might be remedied by pulling them at different times; the other is, that the birds devour abundance; but this might be prevented by nets, guns, Priapus, and several other contrivances. This would employ great numbers of people; has upon trial been proved to answer expectation, and might bring vast profit to the planter, to the merchant, and to the Crown. To encourage this, I know some that intend to let land for a small acknowledgment in wine.

“Mulberry trees and silk worms thrive there to admiration, and experience has proven that the silk manufacture might be carried on there to great advantage. The heat of the summer has been found to agree with the nature of the silk worm extremely well; so that the only reason that I know why the gentlemen formerly concerned in the making of silk in Virginia dropped their proceedings, was the great profit that tobacco brought them *in* in those days; which being raised there only, turned them to an extraordinary advantage, much better than any other project; but now when so much tobacco is made, and the gain so much less than formerly, I can't imagine why the silk trade is not there revived; which I am very positive would turn to a very great account if carried on by good managers. To this Nature seems to invite us, for upon the leaves of the Chinkapin (which seem somewhat like mulberry leaves) I have frequently found a very large worm not much unlike the silk worm, only much bigger.

“If the manufacture of silk was carried on in Virginia, everybody knows what profit it must bring to make silk of the produce of our own dominions, in great plenty, and at cheaper rates than we can have it from Asia.

“Besides, we may observe that the great numbers of people employed in this manufacture, for the most part, might be the young, the aged, and the disabled, who could not work at anything which required hard labor or much stirring.

“Most if not all sorts of English husbandry, I know experimentally, may be carried on there with much less labor and far greater increase than in England. For instance, it is common only by hoeing up the ground, and throwing seed upon it and harrowing it in, to reap from sixty to eighty bushels for one of English wheat, of a large, full grain with a thin rind; and I have had two tons off an acre of *clover*, which we may mow twice; and as for barley's being burnt up with hot, dry weather, it often has the same fate in several parts of England; besides, some experience and observation of the seasons will make people more expert in the management of that and all other sorts of grain, or seeds, or grass, and that they have not these brought yet to the greatest perfection.

“Several English Farmers have indeed been baulked of their expectation in attempts of carrying on their art to great advantage in Virginia, but this in a great measure I attribute to their want of judgment and too strict observance of English customs

and times, without making proper allowance for the difference of soils, seasons and climates; besides the vast expense and trouble, and the long time required in clearing the ground for their purpose, in building of barns, farm-houses, etc., so that at last they run into the rapid current of planting tobacco, which they know will bring them in certain gain with but little expense.

“Now for the conveniency of husbandry, I know a certain gentleman who employs a great number of negroes in clearing plantations and planting corn and tobacco, as usual, with this intention, viz: When these negroes shall have cleared the land, planted hedges, and built barns and farm-houses gradually in a few years, without any hindrance to their crops, then he proposed to let these farms, with a stock of cattle, etc., ready upon them, for a small rent and fines, to such poor, honest, skillful farmers as he can procure to come and take them, either upon long lease or for lives, and remove his negroes upon fresh land to prepare more farms. 'Tis pity but this project were more frequently practised, for thereby good estates might be raised in families; many an unfortunate family might retrieve their bad circumstances and find employment and great benefit, and all this carried on with the same opportunity of profit from tobacco, as other gentlemen planters have; nay better, in that the hands would be still tending fresh ground.

“Would it not be for the good of thousands of unfortunate people, besides for the benefit of Virginia, if farmers were there settled and husbandry carried on regularly, and all sorts of grain and grass brought to perfection; if greater quantities of good cider and fine spirits were made there, not only for their own use, but for transportation to the West Indies; nay, and through England to the Turkish dominions where wine is prohibited? How cheap might ships be there victualled with the best provisions, and what quantities of barrelled pork and beef might be exported from Virginia, with Indian corn, wheat, rye, etc., and be sent to several parts of the world, where such things turn to very good account for the merchant and farmer? Many indeed have been baulked in planting and husbandry there, but such have been chiefly Londoners, who are strangers to country business. Any person may conceive the great profit and use to Trade in general, by having the marshes turned into meadows, the rivers confined to deep channels by passages being contrived at the falls and the upper parts of the rivers being made navigable.

“Besides English goods, several merchants in Virginia import from the W. Indies great quantities of rum, sugar, molasses, &c., and salt very cheap from the Salt Islands; which things they purchase with money, or generally with *Pork, Beef, Wheat, Indian Corn*, and the like. Hogs, horned cattle and sheep thrive and increase there mightily; and salt and casks being very cheap, vast advantage might be made more than is, by raising of great stocks, and salting up beef and pork for victualling of ships, and supplying the W. Indies and other places with provisions, which they might afford to do very cheap, did some of the additional part of their servants before mentioned make it their business to tend flocks and herds, and provide better and more food for them in the winter than what they now usually have.”

IS IT BEST TO DOZEN OR SHOCK WHEAT DIRECTLY AFTER THE REAPER OR CRADLE?

I have shocked directly after the reaper several times, and found when my wheat was perfectly ripe it succeeded admirably; but on each occasion my wheat crop was near the house, and consequently we had considerable wheat not ripe at the time of cutting, owing to the ravages of the poultry during fall, winter and spring, and this portion of the crop put up in shocks of the same size as the others, that is, four to five bushels in each shock, or sometimes more. These shocks sweat so profusely, that we have from fear opened them and dried them out and put them up again. One of our neighbors, an old and good farmer, has persistently insisted that we lost more in waste by this process than would have been lost if we had left them undisturbed; in other words, he believes, or rather insists, that he knows the wheat would not injure from shocking, though immature at the time.

This year we had a very fine crop, the best of it thin and high, and we commenced cutting early, for fear of danger to the tall wheat from storms. We shocked directly after the reaper. On the eighth or ninth day after cutting, we found the shocks quite wet inside, the straw and heads mouldy, and some of them quite black with mould; and on consultation with our nearest neighbor, one of the best farmers in the neighborhood, we concluded to open every one, and did so that evening and next morning, and made arrangements to thresh as soon as it dried out, which we did, and the grain was pronounced the prettiest and best sample that had been sold on change.

Our old friend, of whom I have already spoken, shocked his after the cradles also, and after the discovery of the condition of our crop, a neighbor that lives half-way between him and us importuned him strongly to open his shocks, but he persistently refused, declaring that he knew it would not injure. I was told by several good farmers that they feared he would lose his crop, or that it would rot in the shock. Several old farmers who have been accustomed to shock after the cradles, this year discovered the moisture in their shocks excessive, and, from fear, opened and dried them.

Yesterday morning I heard the steam whistle over at my old friend's whose shocks had not been disturbed since they were put up after the cradle. I mounted my horse and rode over to see for myself the outcome. So far as they had threshed to the time I left, I never saw straw or grain in better condition, but candor compels me to say that I did not see any that could possibly have moulded as mine did. The question I would like those whose constant practice it is to shock directly after reaper or cradle to answer, is this, Would there have been any danger to my crop if it had remained unopened till it dried out in the shock, or would it have dried out or rotted?

This is an important question, and we who are only amateurs in the process, would be pleased to have the advantage of the experience and observation of old practitioners. Gentlemen, please let us hear from you through the *Planter*.

G. B. STACY.

AN ENQUIRY.

Will the editor of the *Planter* please publish in the September number a simple and reliable recipe for making cheese? By so doing he will greatly oblige an

OLD SUBSCRIBER.

This request was too late for our September number, which was in press before its receipt. We are under the impression that the enquirer is a housewife who only wants to make cheese for family use and limited sale. Household and factory methods are different, and for this reason it is important to know the real object of the enquiry. Relying, however, on our surmise, we furnish the following recipes:

CHEESE MAKING ON THE FARM.

No doubt there are many farmers who would like to have a few cheeses for family use, and made from the milk of their own cows; but living away from any cheese factory and the good wife not knowing how, perhaps never having seen a cheese made, the family goes without, except as a few pounds are purchased at occasional intervals. According to my experience in store cheese, most of it is not to be named

in connection with good home-made cheese. From a dairy of four to six cows as good cheese can be made as can be made from any number, provided the wife is competent, as most of our grandmothers were, and to my taste it is better cheese than any I have been able to purchase from the stores.

The things actually needed are a cheese tub to "set" the milk in, a good basket and strainer cloth for draining the curd, a press and hoops of different sizes to accommodate the different sized cheeses to be made. Take pieces of well-cured calves' rennet, soak them in warm water a few hours, pour off and add more, rubbing them occasionally, adding as much salt as will readily dissolve, strain off the liquor, and put it with the first into a bottle or jar, adding so much rock salt that all will not dissolve, but some always remain; cork tight and keep cool. When the night's milk is brought in, strain immediately into the tub and put in sufficient of the rennet extract to bring the curd in from ten to twenty minutes. As soon as firm enough, it should be cut into checks or cubes with a wooden cheese knife. After waiting as long as necessary, it is again cut finely and left to settle till bed-time, when it is dipped into the strainer, spread in the basket and left through the night to drain. If from any cause the curd should not come sufficiently to separate the whey before bed-time, it may be left in the tub, but this is not so well, as it may sour.

In the morning, the tub, having been washed the previous evening, is rinsed in cold water, unless the weather is cool, when warm water is used; the morning's milk is strained into it, and the same process is again gone through with until it is ready to drain, when it is dipped in with the night's curd, and then both are treated together. The whey which runs off in the morning is carefully heated over a slow fire, not so hot as to scorch, but as warm as the hand will bear. When the curd has become sufficiently firm to cut into slices, which condition may be hastened by frequent cutting with a knife, and by a light weight laid on it, it is cut in thin slices, into the tub, and warmed whey poured over it, sufficient to cover the curd well, and the whole is carefully stirred, so that all the curd shall be evenly scalded; and in from fifteen to twenty minutes it will be sufficiently scalded to be dipped off into the strainer basket to drain and cool. In about half an hour, by occasional turning and cutting, it will be sufficiently cool to return to the tub, be chopped fine, and be salted with the best of fine dairy salt. A teacupful of salt to curd sufficient for a cheese of ten to twelve pounds is about right, and should be evenly mixed with the curd, which is then dipped into the hoop, having a cheese cloth spread in it, and then put

to press, subject to a moderate pressure until toward night, when it is turned and an increased pressure added until the press is wanted for the next cheese the following morning, when it is ready to go to the curing room.

Care is to be used not to press too heavily, or a milky white liquid will flow from the cheese, which will drain away the best part of the cheese. This method has advantages over some others, in that it prevents the cream from separating from the night's milk, which can never be so well incorporated again; saves labor in cooling and again warming the milk, and, if judiciously and properly done, it makes good cheese. It is pleasant to know of what and how it is made.—*W. H. White, in Country Gentleman.*

GLoucestershire CHEESE.

S. W. T., Utica, N. Y.: The Gloucestershire system of cheese making in England may be described as follows: The evening's milk is cooled and kept till the next morning, and it is then mixed with the morning's milk, the temperature raised to 80° and 85°, sufficient rennet being added to coagulate it in an hour. The curd is gently broken with a curd breaker, and a metallic press sieve plate allowed to sink slowly through the whey upon the curd, the whey being then let off by a tap or baled out. The press plate is gradually let down on to the curd, so as to press out the whey. The curd is cut with a knife and heaped up in the kettle, and the pressure again applied. When dry enough, it is broken up or ground once or twice, some of the best makers mixing a small quantity—say one pound to the 112 pounds—of fine salt with the curd, which is then vatted and put in a lever press, taken out again and cut or slightly broken and revatted. The cheeses, which are from sixteen to twenty-eight pounds each, are rubbed over on the outside with salt, and fresh dry cloths are put on daily for three days, while kept in press. They are then removed to the cheese room, kept in a temperature of from 60° to 70°, and sold when ripe at from six to twelve weeks old.—*American Cultivator.*

Southern apologists for the sanded cotton are finding much comfort in the story of heavy sticks of wood used in packing Northern bales of hay.

A PROLONGED DROUGHT is causing great distress among the working classes in Spain. The government has consigned large sums of money to the authorities of Andalusia, in order to give employment to the laboring people.

GRAPES.

[For the Southern Planter.]

The increasing and continued widespread destruction of vines in the European wine districts by the *phylloxera*, an insect said to be originally imported from these United States, is causing more and more attention to be given to North American varieties, suitable to wine-making in this country, as well as to the exportations of cuttings and vines phylloxera-proof; these are *Labousca* (with some exceptions) and *Cordifolia* types. The *Æstivolis* type, a grape suited to Southern latitudes, is said to be especially exempt from the ravages of this insect.

The varieties of the European grapes, while generally unsuccessfully grown east of the Rocky Mountains, succeed well in the climate of the Pacific Coast, and have until recently been cultivated to the exclusion of all others in that section of country. The hybrids which have been produced between it and our native grapes give it an interest to grape-growers. "The varieties of the European grapes differ from ours in their leaves, which are smoothish, and, when young, shining; they are more or less deeply five to seven lobed, the lobes pointed and sharply toothed; the flesh of the berry adheres to the skin, while the seeds have a narrow and usually proportionately larger beak than in any of the native varieties. Botanists admit eight or nine species as distinct throughout North America, four only of which have yielded varieties of cultivation, viz.: *Vitis Labousca*, the Northern Fox Grape; *Vitis Æstivolis*, the Summer Grape; *Vitis Cordifolia* or *Vitis Riparia*, the Winter or Frost Grape, or the Riverside Grape, and *Vitis Vulperia*, the Southern Fox Grape. According to Dr. Geo. Engelman, the seeds give, in most cases, more constant marks by which to distinguish the species than could be found elsewhere.

The *Vitis Labousca*, the well-known Wild or Fox Grape, extends from Canada to the Gulf. This grape has given rise to an important series of table grapes, of which the Concord and several useful hybrids are the best known. The Summer Grape, *Vitis Æstivolis*, reaches great perfection in Missouri, Arkansas and Indian Territory. Norton's Virginia and Herbemont are prominent among the varieties. The Clinton, Taylor and Elvira are best known of the *Vitis Cordifolia* or *Vitis Riparia*. The remaining species, *Vitis Vulperia* (the foxy), is not found north of Virginia, and extends into Florida. This is the parent of the Scuppernong, Mish and others. It is called *Bullace*, and also *Muscadine*.

The vineyards of California are threatened by as widespread a de-

vastation as those of France, and the *viticulturists* of the country must look to the *Æstivolis* and *Cordifolia* classes (which have phylloxera proof roots) for a new era of viticulture. These two classes will doubtless, with care and cultivation, give the true wine grapes of the country, and perhaps the world. M.

SUCCESSFUL EXPERIMENT WITH A HYDROGEN LOCOMOTIVE.

On the Erie Railroad yesterday a locomotive fired entirely by hydrogen gas produced by the chemical decomposition of water under the action of ignited naphtha was successfully run from Paterson, around by Newark to the depot in Jersey City, making the trip one minute and ten seconds ahead of time, and coming into the depot with a pressure of 140 pounds of steam, nearly three times as much as the ordinary locomotives carry at the end of such a trip. The engine has been specially constructed under the supervision of Dr. Charles Holland, the inventor, at the Grant Works in Paterson, and made several experimental trips with freight trains previous to the first regular trip yesterday. The train left Paterson at 1:30 P. M. yesterday, the engineer making so much steam that the safety valve had to be opened nearly all the way. It is claimed that when the engineer and fireman get more used to the new engine, there will not be this waste of force, and only half the naphtha used yesterday will be necessary. As it was, the entire amount of naphtha used for nineteen and three-quarter miles was eighty-four gallons, costing \$2.08, about one-third of the cost of coal usually used for the same distance. The system was tried last year on the Coney Island Railroad with an ordinary locomotive, and the discovery of several practical defects led to the construction of this engine specially adapted for her peculiar fuel. No smoke, sparks or cinders are produced, and consequently the danger of setting fire to woods or dry grass is avoided. A number of gentlemen interested in the invention, and members of the New York Heat, Light and Power Company, were on the train, and all expressed themselves as satisfied with the result. The veteran engineer, Wm. Vellner, who ran the engine, said it was "the greatest thing since George Stephenson's time." On Friday last the engine, with only one car attached, which was too light to permit high speed being reached, ran from Jersey City to Passaic Bridge at the rate of fifty-five miles an hour.

[We copy the above from a recent issue of the *New York World* for two reasons: First, That we had been led to believe that the process of Dr. Holland for the decomposition of water and the development of its principal element—hydrogen—which is

the most inflammable of all gasses, will ultimately lead to great results in the cheapening of fuel for all purposes; *Second*, For the reason that our friend, E. G. Booth, exhibited at the Fair of the Virginia State Agricultural Society, in 1879, one of "Holland's Hydro-Carbon Retorts," which was attached to an ordinary cooking stove, and did its work most effectually, and evidently with much less cost than ordinary fuel, and without smoke, dust, cinders, and no flavor which could be imparted to the articles cooked.

Mr. Booth who had the control of the patent for Virginia, and perhaps other States, we thought had a *bonanza*, but for some reason he seems to have dropped it and taken up his present, and perhaps better, hobby, in an agricultural view, the *Burwell's Bay* farm. Let our friend Booth explain; but we must whisper in his ear: Do it in *short-metre*. He will understand our joke.—ED. S. P.]

WHAT AN OLD FARMER THINKS.

Editor Southern Planter:

I have intended, since your July number returned to the old form, to congratulate you and your readers upon it, and hope you may hold to it in future. I have thought it too cheap, and possibly semi-monthly would keep it more frequently before the people and a price to suit, but I yield to your greater experience and *number of years*, and will venture a few ideas for your consideration in furtherance of how our farming interest may advance from its troubles since 1861. Such has been the revolution in it, and what must follow is gloomy to contemplate, and let us recognize the demand for this change. Do not murder the chronic drones. If they will not change, let them die without taking life, and instruct the young in the way they ought to go. Give our boys a practical education—not too liberal to soften their hands and unhinge them from labor, but learn them to be their own mechanics and how to work all kinds of machinery to the best advantage, and not trust it to the dull negro, thus having less for them to do on the farm, but let them follow railways, mines, and to them many phantoms; still they are older and wise enough to settle down to home labor, under the white man's direction and care, for with rare exceptions they are not fit to work land except for others, and then they want more than the farmer can live and pay. As they continue to weed out and disappear, we must learn to do without them, use more machinery, *judiciously* selected and used, also more fertilizers, banish style and luxury, educate our daughters for domestic ladies, to scorn the life of our past days, and our daughters should learn to be useful and independent of husbands unfit to mate with. Each should be too proud to live on the labor of others, and the girls should spurn all fancy men and accept the harder hands of industrious young men.

The press is a mighty lever if it is directed right, and may be useful in that way as well as of crops and all that makes agriculture flourish. Papers on these subjects are far the cheapest literature, and to avoid the opposite and not to be misled by what is not suitable to the location and need of the reader, I am more and more convinced that my theory to work out of our troubles of late years in former contributions is well founded, be how or where you may. Be industrious, honest and self-reliant; love your friends and hate your enemies (the enemies of our State), and labor all the time to improve on the past, and do not fear to speak out and act on your honest convictions, avoiding politics, especially those of these days of degeneracy among men, whilst our females greatly improved in our adversity.

In a word, mixed farming and stock-raising suit our country best, and it leads our children in the paths best suited to succeed their fathers and to prosper and reproduce their like in after ages. Many pursuits present themselves that may fall and carry all in the wreck and leave a family stripped and too late to build up again. The farmer has no good reason or excuse to fall, if he is but rationally deserving, and a more common mind and man may float on, while the apparently brighter and more active mind may be carried down by a speculative life in many callings, but there is no place for the idlers here now-a-days. When such wear out, it is to be hoped better will appear of our production, and thus we may hope for a continued and improved standard of people.

S. W. FICKLIN.

BORAX INJECTION FOR MEAT PRESERVATION.

We have given from time to time the latest means adopted for preserving fresh meat for long shipment in the hope that when the perfect way is secured it may be of benefit to this coast in some way, by reducing cost of carriage on flesh which grows at a distance from the market. The last which comes to our notice is different from those which have been described. Instead of steeping the dead meat in an antiseptic, the preservative chemical is introduced into the live animal, and by the action of the heart is sent through the blood-vessels and capillaries into every part of the body. The sheep, which was first stunned by a smart blow on the head, given by a wooden mallet, showed no signs of consciousness or sensibility throughout the operation. A veterinary surgeon laid bare the left jugular vein, and using an ordinary surgical trocar and canula drew off about a pint of blood.

The preservative chemical, dissolved in warm water and kept at blood heat by a hot water-jacket surrounding the tin can in which it was held, was then allowed to flow through an India-rubber tube, placed to the orifice of the canula into the vein, about two pints being thus injected. As soon as the charge had run into the animal, the canula was plugged, and about two minutes were allowed for the injected fluid to pass through the whole vascular system. The sheep was then stuck by the butcher in the ordinary way. The antiseptic used is boracic acid, which, it is said, does not in the slightest degree affect the flavor or quality of the meat, while the results of experiments show that meat thus treated will, in this country, keep perfectly good, without ice or refrigerators, for five or six weeks in summer and two or three months in cold weather. The cost of the chemical, it is stated, would be, at the outside, eight or ten cents per sheep, and the only apparatus required would be a tank in which, by means of a sand bath, the boracic acid could be kept at blood heat, ready for use when killing was going on.

NOTE.—This is an important and very interesting experiment, and deserves consideration not only for transporting, but for curing meat for home consumption in a simple and cheap manner. We are informed by the Surgeon-General of the late Confederate States Army, that during the war, in consequence of the scarcity of salt for curing meat, an experiment was directed to be made, but instead of borax an injection of strong brine, composed of saltpetre and common salt, was used. The animal selected was a hog. It was stunned by a blow on the head, the animal being insensible, the breast was exposed, and the injection thrown into *vena cava* until the vessels of the carcass were completely filled with the injected fluid. The tail was cut off and the brine was found oozing from the cut surface, tested by the taste. The experiment was very satisfactory. The butchered hog was kept for two months. The meat was well salted. Surgeons Petticolas, Peachy, Tally, Dunn and Campbell, with the Surgeon-General, witnessed the experiment.

SUNFLOWER SEED FOR POULTRY.—A correspondent, Mrs. M. J. C., Otter, Iowa, gives her experience in raising mammoth Russian sunflower seed for poultry and for stock. It is eagerly eaten, makes the hens produce eggs plentifully, keeps the feathers glossy and elegant. Our correspondent has grown it successfully on a variety of soils and even in fence corners, and regards the stalks to be used for kindling wood as by no means unimportant. In conclusion, she adds: "It grows to double the size of the common South American variety, and far excels it in the large heads of nice black seeds, if cultivated like other grains and kept free from weeds. I raised heads larger over than a water pail, and very heavy. I plant a patch every year for my chickens. If you plant near your barn the poultry will live and grow fat, and one would be astonished at the amount of eggs produced. It takes three quarts for an acre and plant as far apart as corn."

A NEW VARIETY OF OATS.

Editor Southern Planter :

As the oat crop of Virginia is almost an entire failure this year, I would like to say a few words in regard to a new variety that I have. Last spring I purchased of Messrs. D. M. Ferry & Co., of Detroit, Mich., one and a-half pounds of Russian White oats, and was so much pleased with them that I bought a bushel this spring. What I raised last year and the bushel bought this, I sowed on an acre of ordinary land without any fertilizer, except 250 pounds of plaster. I sowed sixteen acres in ordinary oats, and 200 pounds of a standard fertilizer per acre.

Now, as to results, the one acre I sowed in Russian White oats, without fertilizer, made four times as much per acre as did my ordinary oats with 200 pounds of fertilizer. They are so far superior to anything I have ever seen in the oat line, that I think it will pay any farmer to get in the seed of them.

Although I am a young hand at farming, I take quite an interest in all kinds of improved seed and stock, and firmly believe that to improve your stock, seeds and lands, is the only way to make farming a success.

Yours truly,

Warrenton, Va., Aug. 14th, 1882.

A YOUNG FARMER.

MAN'S TREATMENT OF THE HORSE.—The man has cut away the frog, because he thinks the horse will be injured if the frog touches the ground. He has then cut a deep groove at the base of the frog. This is to give a well-opened heel, as he is pleased to call it. He has scooped away the sole to "give it spring." He has scored a deep notch in the toe for the shoe. This is evidently a conservative relic of the time when nails were not used, and the shoe attached by three-pointed clips hammered over the edge, one in front and one on either side. Then he has improved the whole of the outer surface of the hoof. As the Creator has furnished this part of the hoof with a thin, hard, polished plate, forming a sort of varnish which is impervious to wet, the farrier, as a matter of course, rasps it all away up to the crown. And as the Creator has placed round the crown a fringe of hair, which acts as a thatch to the line of junction and throws off the rain upon the water-proof varnish, he cuts this away with his scissors. Lastly, the Creator having given to the horny hoof a mottling of soft and partially translucent brown, gray-blue, yellow, black and white—never exactly the same in two hoofs, much less in two horses—the farrier takes a blacking-pot and brush, polishes up the hoofs until they look like patent leather boots, all four exactly alike, and then contemplates his work with satisfaction. In his own words, he has "turned out a finished job of it."

DRAINAGE.

Editor Southern Planter :

I am glad to receive the *Planter* in its old familiar form again, with more in it, *too*.

You say drainage is a hobby with you; it is a *necessity* with me, and, unfortunately, my land that needs it most is at the foot of the first range of hills from the Rappahannock river, and all the open ditches are often filled up by the wash from the hills in very heavy rains, making it very expensive to keep them in good order.

It has occurred to me that this land might be well drained by boring with a small well-auger and putting in tile to a foot of the surface and capping with stone. There is a strata of sand and gravel from fifteen to twenty feet below the surface, and it seems to me it would be much better and cheaper than the ordinary way of using tile. The well-auger would be expensive, too much so for me to get one to experiment with; therefore I ask your private opinion on the subject. I wrote to the *Planter* on this subject once before, but it did not seem to strike any one forcibly enough to attract attention. I hoped some one had tried it and would give his experience. If it is not asking too much, please give me your opinion on the subject, and oblige

Yours very respectfully,

WM. TAYLOR.

Comorn, August 11th, 1882.

[We are glad to submit the enquiry of our correspondent, as it may elicit responses from others better able to give them than ourself. A stranger to the physical condition of the locality cannot be expected to give a reliable opinion. Assuming, however, that the "strata of sand" below the surface would be a safe medium for carrying off the surface water, and that the *strata*, when tapped, will not, on the principle of hydraulic pressure, bring its water to the surface, we may venture the suggestion that the surest plan of drainage will be to run a *horizontal secret drain* at the foot of the hills, filled with loose stones, or with plank troughs, such as we have described, and have this drain tapped at proper distances with *wells*, filled also with loose stones, reaching to the sand strata. Tile cannot, we think, be safely used in such a form of drainage. We have, in several instances, where *basins* would, in wet weather, hold water sufficient to destroy crops, effectually drained them by what are termed *dry wells*. These wells, and only one was required at the lowest point, were dug deep enough to reach a strata of sand or gravel, and filled with loose stones, and so the accumulating surface water was rapidly taken off.

The question is an interesting one, and we should like to have light on it from some of our readers.—ED. S. P.]

LATEST news from Continental Europe report cold weather and hard frosts in the valley of the Danube. Fruit trees, vines and young wheats in Roumania are almost entirely destroyed.

AN OLD FARMER'S IDEAS.

Editor Southern Planter:

We hear a great deal said now-a-days about hard times. It must be confessed they are so hard with many of us, we can barely make *buckle and tongue meet*. But my observation satisfies me they are more so than they need be. Circumstances are, with us, very much changed within the last twenty years. We must try to adapt ourselves to this change. We must heed the advice I once heard an old darkey give a working fellow-servant, viz.: "*Go to work, go to work.*" This will be best for us every way. It will not only contribute materially to the supply of our needs, but will allow us less time for croaking and give us a more peaceful and contented state of mind. True, some of us, by reason of age and infirmity, cannot perform much manual labor, yet such ought to do what they can; supervise and do what an old friend used to call *head-work*.

My own experience and judgment convince me that better results from the same labor might be obtained than is often realized, by a more judicious management and culture. For example, we often see acre upon acre cultivated, the proceeds of which do not pay expenses—1st. Because the land is poor. 2d. It is not properly prepared before planted; and 3rd. It is not well cultivated. Sometimes, when the land is fairly of good quality, the yield is not remunerative for lack of good preparation and culture.

If one has poor land, either originally so or worn out by bad culture, let him take such parts as are most susceptible of improvement, and, by every possible means, gradually make as much of it rich as he can, and cultivate such parts thoroughly, breaking it up as deep as the nature of the soil will allow, and, if need be, following the turn plow with a subsoil plow or coulter. Let his land be put in the best possible order before planting. Let him keep the land well-stirred and clean, working his corn or other crops as soon as they will bear it, and, I feel sure, if he will persistently pursue this course, he will make far more than by the slovenly management too often witnessed.

I have said he must improve his best lands gradually—either with or without capital, it cannot be done in a day or year. But he must aim to increase the area of his good tillable land as time and means allow, and thus I am sure he would make more, perhaps double, in crops and money from the same labor.

I know the plan here recommended has been urged by others time

and again; but really it seems so hard for us to get out of *old ruts*, that we need "line upon liue" to stimulate us to the necessary effort.

I add a word or so on the aid a good vegetable garden affords towards cheap and good living these hard times. But few things pay better or add more to comfortable living. I speak only of a vegetable and fruit garden. Let the soil be worked deep and bountifully supplied with manure. Let everything be planted and worked at the proper time, and the whole kept clean of grass and weeds. Let it be so arranged that the plow may do as much as possible in its culture. Let no grass or weeds go to seed, and let every foot of the ground be utilized in some way. I know some small families who derive a large part of their subsistence from such a garden. To avoid the consequences of severe summer and fall droughts, the land should be worked very deep and stirred often.

M. B. S.

Fluvanna county.

FAUQUIER COUNTY.

Editor Southern Planter :

Fauquier county is one of the largest and most fertile in the State. The Plains is a station on the M. G. R. R., situated in a country beautifully undulating, well-watered and covered with grass, which affords grazing for many cattle. Some of the wealthiest and most intelligent farmers in the State live near by. In walking over the fields, one is reminded of the observation of Mr. Burke, "If you enter the fields of Old England, you will hear the importunate clinck of the grasshoppers, but do not think for a moment that they are the only occupants of the field, where thousands of fat cattle chew their cud in silence under the shadow of the British oak."

This is classic ground! Jackson passed through it to reinforce our army at the First Battle of Manassas, and Lee, at the Second Battle of Manassas, passed through the grass of the Bull Run Mountains and fell upon Pope. The Bull Run Mountain is the local name for this portion of the southwest range, which runs parallel with the Blue Ridge, about twenty miles apart. All kinds of fruit, especially the grape, grow and mature in great perfection in this mountainous region. The Catawba grape, which of late years has failed in so many localities, ripens well here. The mountains are, in many places, cleared to the top and bring good crops of grain and grass. The land, though stony, is very fertile; in evidence of which the old men will tell you that, "Where you miss a stone, you'll find a dollar."

Cool, bold springs burst out in every hollow. It is destined to be a great dairy and wool country, as the cows and sheep get away from the flies on these elevated pastures and thrive well. The space I have allotted to myself is filled, or I would like to canvass with your readers a question now occupying the mind of the farmers of this region, viz.: The advantages, pro and con, of the use of plaster, some of the best farmers thinking it has lost its effect and is no longer a specific manure for clover. How is this? It is contrary to my experience and observation of fifty years, for in those good old times we believed that land in Piedmont Virginia could be improved with great celerity by the use of clover and plaster.

“AN OLD FARMER.”

[In another communication we should be glad to have our correspondent's views on the use of plaster, or any other matter of practical agriculture —ED S. P.]

BILL ARP'S MUSINGS.

I take *The Country Gentleman*, and like it. It is a good paper, but it is a better paper for the North than for the South. It has, in every number, a great deal of matter about things that don't concern us much, such as about onions, and hops, and bee-keeping, and ice houses, and live stock sales, and dairies, and ensilage, and the weather up there, and so forth. May be we will get to all that after while, but a Southern journal can better tell us what we want to know right now. Then, besides, there is now and then a fling at us in its columns that don't digest well. One of its ablest correspondents, Mr. B. F. J., from Illinois, is always interesting, but he came down here to the Exposition on the fly and went back home in a sort of a fog. He says he did see some fine corn and wheat and other products on exhibition, but don't know where they could have come from, for he saw nothing but poor land and shabby farms. Well, that kind of an endorsement about settles us with the Northern readers of that paper. It is unfortunate for the reputation of our State that our principal railroads run along our poorest lands. From Chattanooga to Atlanta the prospect is not very inviting, and from Atlanta to Macon is worse, and the Georgia Railroad is not much better. If Mr. B. F. J. could spend a few weeks perusing around such valleys as Cohutta and Fairmount, and Cave Spring, and Cedar Valley and along our rivers and creeks, and climb upon our mountains and look around him, may be he would find out where that corn came from. In a late number, B. F. J. gives us a dig for pretending that our soil and climate is equal to theirs, and says that we are so pos-

sessed with these ideas that we won't even admit that one-third of our population, in portions of the South, is now on the verge of starvation from the drought of last summer. Well! that is news to me. I haven't heard anything about starvation. The fact is, starvation is an unknown affliction to our people, except it comes from war or Sherman's march to the sea, or the late flood on the Mississippi. Our people don't get rich as a general thing, but they never starve. We have no beggars going from door to door in the country. We have no tramps cruising around scaring the women and children to death. I never lock a door at my house, and hardly ever lock a corn crib or a stable. I live five miles from town on a public highway, a market road, that is travelled a great deal, and I never had but one person to call for charity, and he was a mute who wanted to stay all night. There is a poor-house in most of the counties, but it is hard work to get anybody to go there. They are not popular. Our poor folks can turn out any time and make money enough in one day to feed 'em for two or three, and they can do this all the year round. We don't have to work for six months to raise provisions to go into winter quarters with for the next six, and therefore our people are not as industrious as our Northern brethren, for there is not the same necessity for it; and the further South the people live the more indolent they are, and this is according to nature and no fault of the people. Bees don't lay up a store of honey where the flowers bloom all the year round.

Now we don't hanker after immigration. We welcome 'em when they come, but we don't want 'em bad enough to tell a lie about it, and say our people are not starving when they are. Our land and climate is good enough for us, and we can tell B. F. J. one thing he never thought of, a hundred of his people come down here to live where one of ours go up there. That means something, or else there are ninety-nine fools to one man of sense.

Another correspondent seems mighty well satisfied where he is, and I hope he will stay there, for I do love to see folks contented when they are doing well. He says we have many complaints of great heat, and frequent droughts and ravages of insects, but their folks can always depend on average crops, and their stock is larger and healthier, and their people live longer, and that history proves that Northern nations are always the most powerful and hold the keys of nationality. He says that our long summers are a disadvantage and make us careless and slothful, and we do everything in an easy-going-lots-of-time style, and winds up by asking us, "is this not so?"

Not altogether, my friend. Nature has been right kind in distribu-

ting her favors. There is no land or region that has got them all. The law of compensation comes in and tries to equalize everything and everybody. The colder the climate and the longer the winter, the harder a man has got to work, and that makes him diligent and industrious and careful and economical, and gives him good habits. He plows deeper and takes better care of his stock. If our folks were to work as hard and be as saving as the Yankees, they would get so rich in ten years they wouldn't have to work any more for the rest of their days. It is a fact that most of our second-class farmers do things in an easy-going-lots-of-time style, and all that comes not so much from climate and long summers as it does from the way our forefathers started out. Before the war the negroes were the farmers mostly, and they used the old-fashioned tools and scratched about on the ground and made about enough to feed and clothe themselves and white folks and not much over, for our habits were plain and simple, and since the war our people have been so poor and broken up they couldn't get a start for a long time, but it is wonderful what they have done. We are getting along pretty well now and are able to buy machinery and better implements, and we will catch up before long. We can make as much on our lands as anybody anywhere, and hundreds of our farmers have proved it. As to health and long life, I don't know exactly, but a life insurance man told me not long ago that the balance of trade with old Father Time was in our favor. I know that Florida is being filled up with Northern invalids, but I never heard of our people going North for health. As to the Northern nations holding the keys of nationality, I can't see it in the light of history. England has held 'em a long time, but that was on account of race and not of climate. The Irish live close by and never had a door to lock, much less a key. The truth is, the nations occupying the temperate zones, neither far north nor far south, have held the keys mostly. To make a vigorous manhood, people must be neither melted or frozen. Even Judge Tourgee admits that the Southern States controlled this government for fifty years, and says they will do it again, and they will and they ought to until they get like the majority of our Northern brethren and love money more than country. They taunt us with being poor, why the best and greatest men are generally poor; poverty is no crime, we would rather be poor than be rich and miss Heaven.—*Bill Arp, in So. Cultivator.*

Know most of the rooms of thy native country before thou goest over the threshold thereof.—*Fuller.*

A NEW METHOD OF GROWING CORN.

Mr. J. S. Winter, of Montgomery, Ala., has been making experiments in growing corn. From a letter explaining his views and their results, we extract the following, which will explain his method. His first experiment was in planting in rows fourteen feet apart and one foot apart in the drill, or at the rate of 3,640 stalks to the acre, to correspond with the number common to the acre when sown in the usual three feet by four feet way. The returns from this trial induced a further experiment. Twenty acres were put down in rows twelve feet wide and one foot apart in the drill, and notwithstanding the prevailing and unusually disastrous drouth of the last season the crop realized was double the best grown on the land for years, and twice that grown on the infinitely richer adjoining bottom lands cultivated with equal care, but planted in the ordinary mode and ordinarily producing double the crop usual to the land devoted to the experiment; the increased return being greatly due to the increased exposure of the plants to the influences of light and air, as also in a measure to the greater moisture-retaining capacity of the wider and amply cultivated spaces incident to the change.

After making several efforts in the demonstration of the greatly superior advantages of the wider row system of corn culture, Mr. Winter regards with most favor the plan of planting two rows four feet apart, with the distance in the drill say from nine inches to two feet, determined and regulated by the quality of the land; then skipping sixteen feet—two other four-foot rows, followed as before, and so throughout, the yet wider beds being necessary, as he conceives, to the freer and less hindered use of the intervening spaces for the adjunctive crops which he has in view as part of the system, such as field peas, millet, fodder corn, etc., to be put in after the corn crop has received its final cultivation.

Mr. Winter remarks that "the distance in the drill thought best on the particular lands devoted to these experiments is one foot, so that the number of stalks to the acre will, in theory at least, be 4,853, or just a third more than the 3,640 due to the current three-by-four method; while the latest experiment warrants expectation, under average conditions, of one-half more weight of corn to the stalk."

Mr. Winter thus further sums up the advantages of this system: "And thus 20 acres of the 100, say, ordinarily surrendered to the corn crop, it seems possible indeed to gather—and especially in seasons of protracted drought, for the wider beds secure absolute immunity from its usual pre-

judice—double the corn to be otherwise produced on the entire 100 acres, and of vastly better quality; while the field pea sown as early as the 1st of May may be alternated with German millet, fodder corn, and other quickly maturing crops, to be put down in this latitude as late even as the middle of July and gathered by the first of September, and these in turn by the native crab grass, which will be all the better for the later start.

“And the promise is, accordingly, of adjunctive crops rivalling in value and in their uses, to the practical farmer particularly, the main or corn crop; while, again, the cost of growing and gathering each and every of the entire of these products is infinitely reduced, if aided in the work by the improved power implements now-a-days at every good and thrifty farmer’s command.”—*Saunders in Tribune.*

[There is some novelty in Mr. Winter’s plan of culture. It deserves experiment to see practical results. The greater facility for sowing peas to be fallowed for wheat is a strong point. We would like for some of our Virginia readers to make a note of this matter and try an experiment next year and report results, whether good or bad.—
Ed. So. PLANTER.]

EXPERIMENT WITH POTATOES.

[From Elmira (N. Y.) Husbandman.]

Perhaps the following statement of the result an experiment made by me this summer, may be of some interest to the members of your Club. The object I had in view was to ascertain the amount of planting material requisite to reach satisfactory results. For this end, I planted in my garden ten rows of potatoes, each row consisting of ten hills. The potatoes (Early Ohios) were planted April 26th. The harvesting took place to day. The product of each row was accurately weighed. Here is the result:

- Product—40 1st Row—One eye in each hill.
pounds of well developed potatoes.
- Product—55 2d Row—Two eyes in each hill.
pounds of tubers, rather mixed as to size.
- Product—56 3d Row—Three eyes in each hill.
pounds of mixed sizes, many small ones.
- Product—63 4th Row—Seed end of medium potato.
pounds; very few small tubers, mostly large.
- Product—51 5th Row—Butt end of medium potato.
pounds; few large tubers, mostly small.
- Product—60 6th Row—One small potato.
pounds, mixed as to size, many small ones.
- Product—73 7th Row—One potato of medium size.
pounds tubers, very fine and large, few small ones.
- Product—102 8th Row—One large potato.
pounds of uniformly large size.

I do not suppose the result will, under all circumstances, be the same, but this Dutchman is bound hereafter (until better informed) to use large potatoes for planting. On the correctness of the above statement you can fully rely.

HANS BUSCHBAUER,

Milwaukee, Wis., Aug. 12, 1882. Agricultural Editor *Germania*.

ANOTHER NEW CEREAL.

Rev. H. B. Pratt, of Winnsboro, S. C., who was for some time a missionary in South America, calls attention in the Southern journals to a food plant which grows abundantly in Colombia, and which he believes will do remarkably well in portions of this country. Its especial merit consists in its ability to grow during severe and protracted drouths. He does not give its botanical name, but calls it *millo* (pronounced meel-yeomaize). He states that it forms the ordinary and favorite grain food of the laboring classes in Colombia, and that it is also used for feeding animals that are trained to work. He has been cultivating it in South Carolina for the past four years and has met with excellent success. Recently he has had some of it ground and made into cakes, which he has sent to various persons that they might test their value. The bread made of it is pronounced superior to that made of corn. The chemist of the Savannah Guano Company pronounces the grain superior to wheat for food purposes. Mr. Pratt's experiments indicate that from fifty to a hundred bushels of clean seed can be raised on an acre. Some of his statements about the plant and its products are here given.

“The plant is allied to the sorghum and Guinea corn families, and should not be planted where there is danger of mixing them. The grain is smaller and more mealy than the Guinea corn, the heads are larger and less compact, and the color is milk-white instead of red. It differs from the sorghum in this, that the sugar it contains is fully converted into corn when the grain matures, so that the pith of the green stalk becomes as dry and tasteless as that of Indian corn when the stalk is dead. Except for this, and as the valuable product of leaves is green till frost, the whole might be converted into ensilage, after the grain from the main stem is harvested. If desired for the latter purpose, it can be planted on wheat or oat land, by improving the first good season after wheat is cut. Planted about the 1st of July, it will be in blossom, and therefore ready to cut, about the 1st or middle of November. As a green food for cows, to be cut repeatedly during the summer, it has few equals.

“I have seen it growing in the United States of Colombia at all elevations, from the sea level to an altitude of four thousand feet—never higher, I believe—and in all climates, from the wettest to the driest. In Barranquilla, on the coast, where we have a dry season (which is really a ‘drouth’) of five or six months’ continuance, I have had it planted in my garden, and after it had ripened one crop of seed I have cut it down to the roots, in the midst of this dry season, and had a second crop (of inferior quality, of course,) to shoot up at once from the roots. I have been told there that a third crop of fully ripened seed can thus be made from a single planting. I do not know what this can imply (for the soil at that season gets to be as dry as a potsherd, and nearly as hard) unless it means that above most other plants this lives off the atmosphere, which there certainly is densely charged with moisture from the sea. It was this unlimited capacity to stand drouth which induced me to bring the seed home, in the belief that it would be of incalculable service to our Southern States, where our grain crops so often fail from drouth, and where a really good crop comes perhaps once in five years, if so often as that.

“The ordinary planting in South America, which I have followed here, is in rows about three feet wide, or less, the hills a foot and a-half apart, and three or four grains to the hill. They never thin it, and it stools, more or less according to circumstances. Thus there are nearly ten thousand hills to the acre, and even in this exceptionally dry summer, and under unfavorable circumstances to be detailed hereafter, I have raised scores of heads which would each yield four or five ounces of clean seed. When, then, one remembers how many hundreds of thousands of dollars go out of the State every year for corn, and how many hundreds of thousands more go for bacon, he will be prepared to estimate the value of a nutritious and palatable cereal which laughs at dry weather, and furnishes abundant and wholesome food for man and beast.”—*The Mill-Stone*.

[Our great staples, wheat and Indian corn, as food plants, will feed the world, and with proper cultivation will meet all demands upon them. In this respect we are like the old woman who preferred the “old-fashioned way.” But still we would like to hear more of this new cereal.—ED. S. P.]

PITTSBURG, Pa., produces more than half the glass made in the United States.

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

WHAT FANCY FARMERS HAVE DONE.

They tested theories while others raised crops for market; they have given the glory to farming which it would not otherwise have possessed. Fancy farmers have changed the wild hog into the Suffolk and Berkshire, the wild cattle of Britain into Shorthorns, the mountain sheep, with its long body and hair fleece, into the Southdown and Merino. They brought up the milk of cows from pints to gallons. They have lengthened the sirloin of the bullock, enlarged the ham of the hog, given strength to the shoulder of the ox, rendered finer the wool of the sheep, added fleetness to the horse, and made beautiful every animal that is kept in the service of man. They have improved and hastened the development of all domestic animals until they scarcely resemble the ones from which they sprang. Fancy farmers introduced irrigation and under-draining; also grinding and cooking feed for stock. They have brought guano from Peru and nitrate of soda from Chili. They have introduced and domesticated all the plants we have of foreign origin. They brought out the theory of the rotation of crops as a natural means of keeping up and increasing the fertility of the soil. They ground up gypsum and bones, and treated the latter with acid to manures of particular value. They first analyzed soil as a means of determining what was wanted to increase its fertility. They introduced the most improved methods of raising and distributing water. Fancy farmers or fancy horticulturists have given us all our varieties of fruits, vegetables and flowers. A fancy farmer in Vermont a few years ago originated the early rose potato, which added millions of dollars to the wealth of the country and proved a most important accession in every part of the world where introduced. Another of these same fancy men originated the Wilson strawberry, and another the Concord grape. But it is unnecessary to enumerate; any one who will take the trouble to investigate a little or reflect, will readily see and cheerfully accord the praise that is justly due to the men who are called "fancy farmers."—*San Francisco Chronicle*.

REPORTS from the north part of Vermont are to the effect that the maple sugar season has been a bad one, and the product of comparatively small account.

MAKE the doors upon a woman's wit, and it will out at the casement; shut that, and 'twill out at the keyhole; stop that, 'twill fly with the smoke out at the chimney.

JOHNSON GRASS.

This has been called Cuba grass, Guinea grass, Egyptian grass, Means grass, Alabama Guinea grass, etc. It seems pretty well agreed now, however, to call it Johnson grass and leave the name Guinea grass for the *Panicum jumentorum*, to which it properly belongs. In many periodicals and books, and in letters and common usage, this grass has been far more generally called Guinea grass than the true Guinea grass itself, thus causing vast confusion. It is therefore assuredly time to call each by its right name. It is the coming grass for both grazing and making of hay. It is perennial, succulent, containing much saccharine matter, very valuable for dairymen, stock growers and farmers in all parts of the United States. It is undoubtedly the best forage plant known. Has strong, vigorous roots like cane, an abundance of long and tolerable broad leaves. Its stems attain a height of seven to ten feet, with a large, spreading panicle. The flowers and seeds are much like broom corn, but the panicle is finer and more spreading. Sow early in the spring at the rate of one bushel to the acre. Col. Killbrew, in his valuable work on Grasses of Tennessee, thus describes it: "It rises with a stem from four to twelve feet high, according to the soil on which it grows; erect, smooth, leaves linear, flexuous, graceful, curling down at the ends like corn; flowers in a panicle at the top, at first green, changing gradually to brown." It not only thrives well on bottoms, but it will grow just as well on upland, and, though on poor upland, it will make but little hay, it makes fine pasture. It likes dry, hot weather, and while all other grasses seem to feel the effects of the hot sun, this retains its deep, rich green color, being but little affected by the drouth. This is because of its long roots, which, like clover, run deep for moisture, often reaching two or three feet below the surface. Breaking up the land every few years gives it all the culture needed, while a liberal top dressing of stable manure, or some good fertilizer, rewards the grower abundantly.

Among all the grasses that grow, none is attracting the attention of the world as much as the Johnson grass (*Sorghum Halapense*). Experience proves that it is worthy to stand at the head of all cultivated grasses. Some of its virtues are as follows: It is perennial, a rapid grower, very nutritious, being eagerly devoured by all kinds of stock, comes early in the spring, grows until the frosts cut it down in the fall, stands the drouth better than any grass, having long cane-like roots which penetrate the soil for moisture, superior both as a grazing and hay

grass, has abundance of roots, which decay, thereby enriching the ground rather than exhausting it as timothy does; belonging to the Sorghum family, it contains much saccharine, which is an important factor in feeding of stock. It will grow on any land where corn will grow (in fact corn is only a larger species of grass). Some confusion has arisen by calling this Guinea grass. *Panicum Tumentorum* is the proper classification of the Guinea grass, while *Sorghum Halapense* is the botanical name of the Johnson grass. They look alike, but the essential difference is that Guinea grass is too tender to grow at any great distance from the gulf shore, rarely matures its seed even in Florida, while Johnson grass will thrive almost everywhere, maturing its seed anywhere in this country.

In preparing lands for the Johnson grass this is requisite: Break your lands by deep plowing, then, with a good smoothing harrow, pulverize the surface until every clod is destroyed, giving a good seed bed. Then sow broadcast with extra clean seed, at the rate of one bushel to the acre, and cover with a light brush or sow just before a heavy rain. An excellent rule in sowing seeds is to cover them in depth not exceed three times the length of the seed. With this preparation a good crop can reasonably be expected.

Rich bottom lands give the best results for grass culture. They retain the moisture longer than the higher lands, and usually get the wash of the uplands. Sandy soils raise good grasses, but are not as profitable as black soils.

When stock are not at work they do well on the grass or hay without grain. A top dressing of stable manure, cotton-seed meal, or land plaster will materially increase the growth. After the land has been in grass for three or four years an excellent plan is to break it up, and sow it in oats, which mature early enough to give two good cuttings of grass besides. An ignorant prejudice has arisen in the minds of some people who think the grass cannot be gotten rid of if once well set. Experience proves to the contrary. By plowing up the grass in August and September, with a two-horse plow, the roots are exposed to the hot sun and killed, so that the following year crops can be cultivated with no more trouble than other lands. This grass enters into the rotation of crops as well as any of the clover grasses. An experience of over forty years of N. B. Moore, of Georgia, led him to select this grass as the best, and plant this only, and no amount of experiment will produce a better. No farmer who gets a good field of this grass will desire to be rid of it, but rather increase its area.

On land that will produce a bale of cotton to the acre, four to six tons

of hay can be cut per annum, cutting three and four times. Heavy fertilizing would produce greater results.

The best results following sowing the seed in August and September, enabling the seed to get a good root by fall, and forming a better turf the following season. The ground is usually cleaner in the fall, and if the weeds start they are easily killed by the frost, or the vigorous growth of the grass kills them. Three good crops the following season will be the result if the season is favorable. Sowing in the spring does well, but the crop would not be as heavy the first year. But if a farmer is ready to sow in the spring, he had better sow then than wait, as he gains so much time in growth.—*South and West.*

BEDDING FOR COWS.

Here in New England cords upon cords of good dry sawdust and turning shavings are put into the streams at the several sawmills, cabinet shops, etc., and farmer A's cows only a mile away never have one mite of bedding the whole winter. Having talked with some of the folks that have used turning shavings or sawdust for years, it is their opinion that it pays more than double the expense incurred in getting the sawdust, for the amount of manure it makes; it saves all of the liquid manure, makes the manure pile fine and easy to work over; and it will be obliged to be worked over unless you have hogs upon it to keep it from heating with considerable sawdust in it; but that can be done on leisure days; then it will be fine, all ready worked over for the spring work, and in its best shape for the crops to get the benefit. Green manure from cows that receive no bedding and not worked over only as it goes in and out of the cart, is not worth one-half as much as fine, properly prepared manure. It not only pays that way, but how much more comfortable the cows are; keeps them clean, much better milking, etc. You receive a profit in more ways than one.—*Mirror.*

A PLANTER of South Carolina has over 1,000 tea plants. Some of them are six feet high, and over ten feet in circumference.

THE sites of prospective Western cities are sometimes determined by capitalists, who have special facilities for securing a population. A party of men, wishing to build up a town in Dakota, took a tract of prairie land, appropriated about \$100,000 for public buildings, and secured car shops, stock yards and other interests enough to insure 10,000 inhabitants within two years.

SOMETHING FOR THE AMERICAN PEOPLE TO CONSIDER.

“The richest agricultural and horticultural contributions have come down to us from the master minds of Greece. They drew their inspiration directly from nature herself, and not from what some earlier writer had said about nature.”

The pupil of Socrates, the leader of the immortal retreat of the ten thousand, from his farm at Elis, wrote: “Agriculture, for an honorable and high-minded man, is the best of occupations and arts by which men procure a living, for it is a pursuit that is most easy to learn and most pleasant to practice; it puts the bodies of men in the fairest and most vigorous condition, and is far from giving such constant occupation to their minds as to prevent them from attending to the interests of their friends and their country. A man’s home and fireside are the sweetest of all possessions.” So long as Greece gave proper attention to her productive interests, and especially to agriculture, her star stood at the zenith, but as luxury increased labor was degraded, education diverted from a practical to a speculative course, and agriculture became subordinated to trade and commerce; the star of her glory gradually sank to the horizon, from which it has never again risen.

The policy of Rome was to “secure to the plowshare what she won by the sword.” Twice was Cincinnatus called from the plow to save his country, and not until effeminacy and luxury supplanted the rural tastes and habits of the people was she overrun by the hordes of the North.

Did time allow we might run through the whole catalogue of nations that are or have been powerful upon the earth, and show that in proportion as they dignified labor and fostered their productive industries they have been great, powerful and stable. Read the histories of these nations, and we find that the development of their productive industries, either by just laws or the fostering care of their governments, has marked the era of their progress, prosperity and highest civilization. The accumulation of capital in the hands of a few, by trade and commerce, and the oppression or neglect of the productive industries, equally marks the era of their decline and overthrow.—*Dr. Thomas P. Janes, before the American Agricultural Society.*

ASSUMING the average length of mankind to be a little under four feet, the bodies of all mankind, living and dead, placed end to end, would just make a bridge from the earth to the sun.

HORSES.

Three classes of horses are in demand and the demand cannot be ignored by the breeder. The draft-horse, roadster and racers. He must adapt himself according to circumstances, and his tastes, and breed accordingly. The time has gone by when intelligent men expect any one class to come by chance or without breeding with a specific object in view.

The heavy, muscular draft-horse, with the strength of half an elephant, is what is needed for heavy team work. A pair of such horses for many places are worth three pairs of light-limbed stylish animals.

Strength in these Percheron and Clydesdale horses is massed in a compact form. A pair attached to a strong wagon can go with a two-ton load where a six-horse team cannot enter or be handled. For express wagons, carters and the army, they are in the highest degree important. Too much push can hardly be manifested in their production. Great height and long legs are not desirable, but compactness of body and strength of muscle. Great lathy, long-legged, flat-sided hay-mows and oat-bins are not what is wanted. The strength of neither man nor horse can be estimated by the amount of food they consume. One of the flat-sided overgrown horses may devour twice the food of a compact muscular animal and not possess half the endurance or strength.

The exact extreme of this horse is the roadster. He does not carry a pound of superfluous flesh or bone to weigh down his fleetness. Every ounce of bone and muscle is utilized for strength and speed. He has grace of head, ears, open forehead, intelligent eyes set far apart, clean throttle, arched neck, light, airy cylindrical cone-shaped body that scarce exposes a bony protuberance, with fleet and sure feet. Such a horse is a thing of beauty, and, if well kept, will be a joy and a comfort for many a year. He is a roadster, and too intelligent to be a shyster.

The spirit of the war horse is in him. He is too proud to be scary; feels above it; knows his master, and has an instinctive concern for the safety of his mistress; tells, as plainly as mute language can tell, when anything about the saddle or harness is out of order, and is never so proud as when assured that his fleet steps are pleasing to the master, who fondles and pets him.

It is wise for any man of means to have such a roadster and keep him till worn out. If well used, he will be good at twenty-five or even thirty, as we have known. Some horses are too noble by nature to be

used in the drudgery of the farm. It is a shame to put them to the cart.

Akin to this horse, but used for different purposes, is the light, airy, clean-limbed, intelligent racer; too proud to touch the ground or to make a display, only in the presence of his peers on the race-course. He loves it. The very sight of it fires his blood, quickens his pulse, and converts his muscles into springs of steel. It is amusing to watch him. If I worshipped an animal, it would be an intelligent roadster or race-horse. What a pity he should be abused. His usefulness has been greatly lessened by the invention of the telegraph and the use of the iron steed upon the rail. But he will always be admired, and trials of speed will always be common, but the evils connected with it may be greatly lessened.

Another class of horses might be named, but they need not be bad—scrubs. As among men, hewers of wood and drawers of water will always exist—so will these, do what we can to improve the breeds.—

Practical Farmer.

COMMON SENSE IN THE POULTRY YARD.—The “poultry” that everybody keeps are technically designated “fowls,” or “barn-door fowls.” As a rule they are kept in small flocks, fed chiefly upon what no farmer misses. On most farms a flock of twelve to twenty hens will pick up a living without receiving a particle of grain from May to October, including both months. Their food consists of insects, seeds and grass or weeds; they need fresh water besides. What wonder is it that fowls thus kept are demonstrably more profitable than any class of stock or any crop on the farm? This is the best way to keep fowls, provided they can be induced to lay where their eggs can be found while fresh. To accomplish this a house of some kind is needed where the fowls may be shut in occasionally for a few days at a time, so as to make them roost and lay in convenient places. If fowls can roost in the trees, lay all over the farm and “dust” themselves in the road, they will almost surely be healthy, lay a good many eggs and keep in good condition. Besides, every now and then a hen will unexpectedly appear with a brood of ten or a dozen chicks, hatched under one bush where she had “stolen” her nest and done her hatching. That is all very well, so far as the hen is concerned, but no one wants it to happen. We wish the hens to lay and sit where we can put what eggs we please under them for hatching—and what is still more important, we wish to be able to collect the eggs for use or for sale daily. A fresh egg is a joy, a delight, a good gift of Heaven—a “perfectly good” egg is an abomination. An egg to be fit to eat or for sale, must be fresh beyond peradventure, and utterly untainted with suspicion of having been brooded or weathered. For this reason it is a most untidy thing to use natural nest eggs. The nest egg after awhile is almost surely gathered and of course is not “right.”—*American Agriculturist.*

SHEEP, THEIR TYPES AND CHARACTERISTICS.

Fine Wool—Saxon Merino.

It is not a matter for wonder that in the hands of so painstaking and intelligent breeders as those of Germany, whose attention was early attracted to the Merinos of Spain, that this susceptible animal should soon assume a distinctive type, and a high order of excellence. Several of the German States, as well as their neighbor Hungary, possess flocks upon which have been bestowed every effort at improvement that was within reach of science or wealth.

In 1765, the Elector of Saxony, Augustus Frederick, by permission of the Spanish authorities, imported into his own country 300 Merinos—about 100 rams and 200 ewes, mostly Escurials—placed most of them upon his private estate, and afforded for their improvement every facility within law and personal effort. A commission was appointed to look after the management of the highly esteemed flock, and every possible means used to bring the excellence of the newly acquired Merinos to the favorable attention of Saxon breeders. It was not, however, until the expiration of several years, and after experiences with the Spanish stock that in some instances was compulsory, that the prejudice against innovation upon the traditions and practices of their ancestors, characteristic of most peoples, was so far overcome as to insure the newcomers a welcome to the sheep-folds of their adopted home. When the value of the new acquisition began to be appreciated, and the reaction in their favor fairly set in, so great was the demand for rams that to partially meet it a new importation was determined upon. Accordingly, in 1777, an envoy was dispatched to Spain, commissioned to purchase 300 animals, in which he was but partially successful—returning with 110, pronounced superior to the animals of the first importation. Other breeding establishments were at once founded and stocked with these animals, schools for the education of shepherds were established. The commission before mentioned was active in disseminating among the people information as to the importance of sheep culture and the details of its successful prosecution. In some instances the royal tenants were required to become the owners of a certain number of sheep—and there was laid the foundation of a peculiar fine-wool industry that has since widened into a world-wide celebrity, and has made a lasting impression upon the husbandry and wool manufacture, not alone of Europe, but the civilized world as well.

As evidence of the exceeding care with which selections of rams des-

tined for use in improving the Saxon flocks were made, Youatt quotes a letter from a breeder detailing the process of determining the fleece merits of individual animals, viz: "— when the lambs are weaned, each in his turn is placed upon a table, that his wool and form may be minutely observed. The finest are selected for breeding, and receive a *first* mark. When they are one year old, and prior to shearing them, another examination of those previously marked takes place; those in which no defect can be found receive a *second* mark, and the rest are condemned. A few months after they in like manner receive a *third* mark, when the slightest blemish causes a rejection of the animal."

From the first, the efforts of those directing the management of the Merino in Saxony, seem concentrated upon the refinement of fleece. This was rapidly secured, though not without the sacrifice of certain attributes for which the animals were most highly esteemed in their native country. The hardiness for which the Spanish Merinos were conspicuous, would seem to have been almost entirely eliminated, from the accounts of the routine management of the most highly-prized flocks, which required dainty housing and dainty food to which the "hot house" animals of this and other countries are strangers. One account, given by a prominent herder, says, after enforcing the necessity of housing every night, "even in summer, except in the very finest weather," until the dew is off the grass, that "if they are permitted to eat wet grass, or exposed frequently to rain, they disappear by hundreds with consumption." The most careful attention was bestowed during the lambing period. The ewes and young lambs were placed in a pen by themselves, and remained thus until the latter was old enough to travel to the pasture, the while being tempted to eat by such dainty morsels as could be found for it.

Under the enervating influence of such a treatment through a period of sixty years, the Saxon Merinos, in 1824, the date of their introduction into the United States, were poorly calculated to endure the exposure and privations that awaited them this side of the Atlantic; and any other result than that which befell the attempts to engraft their characteristics upon American fine-wool flocks, might properly have been esteemed a little short of miraculous. A large proportion of the animals included in these importations, according to contemporaneous evidence, were impurely bred—high grades picked from such flocks as had an annual surplus for market; which found its readiest purchasers among those supplying the "fevered" American demand for Saxon sheep. Here the fact of importation became the passport into folds that afterwards went down in the general disaster that overtook, with

few exceptions, the fine wool industry of the United States. Men who had been identified with the importation and improvement of the Spanish Merino yielded to the "craze," and crossed upon their flocks the light-fleeced favorites of the hour. A few breeders saw the mistake into which they, in common with others, had fallen, in time to rescue a portion of the flock from the general maelstrom which so nearly engulfed the descendants of Spanish Merinos in America; and to this fact is the country indebted for the American Merino of to-day.

As in the Saxon Merino, everything was sacrificed to the texture of fleece; the weight of fleece was considerably reduced. This fact, coupled with the deteriorating influence of the cross upon the standard of hardiness, which was a recognized necessity to successful sheep husbandry in America, soon made evident the policy of eliminating the Saxon blood, and now for more than forty years the tendency from that type and blood has been as rapid and direct as breeders could make it. Saxon blood is claimed as remaining pure in a few flocks, but the individual animals composing these flocks bear little resemblance to their ancestors which lorded the sheep walks of fifty years ago. The fleece has been Americanized; though fine, the fibre is lengthened and the weight greatly increased; while the carcass is equally improved. This animal commends itself to breeders who aspire to the production of a superfine wool, for which the tendencies of fashion will, ere long, create a demand; and this, probably, in advance of the ability of the breeders of American Merinos to supply. This class of breeders will, however, be limited; and the man need not be much of a prophet to discern that the day of popularity for the Saxon type of Merino among American breeders is altogether a thing of the past.—*Practical Farmer*.

CARBONIZED BRAN FOR FRUIT PACKING.—The California Fruit Shipping Co., of Vacaville, Cal., furnishes the following information in reply to a query from an Eastern paper: "Carbonized bran" is made from ordinary wheat bran burned in a retort, under which treatment all moisture is driven off and a species of charcoal is obtained. This coal bran is used in packing green fruits for long shipment, and the patentees claim that grapes, when thus packed, may be shipped from this coast to Eastern markets by slow freight with safety, thus avoiding the high charges on fast freight. The company claims that tomatoes have been kept for six weeks when packed in this bran. It is stated that peaches will keep twice as long as under ordinary conditions, but this fruit, having a porous skin, is not as well preserved as other fruits.

WHY?

Crop reports often give the wheat yield of a locality at "10 to 25 bushels per acre;" or 10 to 20 bushels; or 20 to 30; or sometimes even 30 to 40 bushels. Do the 10 to 15 bushel men ever inquire how the 25 to 40 bushel men get their big crops? Or does the man who gets a 40 bushel crop in one field and a 20 bushel crop in another, ask his land why such a difference exists? Here is a text from which every wheat field could preach a sermon on Seed, Tillage and Manures. If the full heads on the stout stalks of the 40 bushel field could speak, they would say. "We are descendants of choice selections of the family of Clawson, or Fultz, or perhaps of Russian or Australian origin. Our parent seed has long been noted for strength of character, vitality and fecundity. Our farm owner is a man of brains and sense. Having paid a good price for our parent seed, he determined to make the most of his purchase.

This soil had long been cropped, though kept free of weeds, but he plowed and cross-plowed it, and harrowed it, and pulverized it, until the whole broad field was a fine seed bed; and at the last harrowing he gave it a liberal dressing of bone dust, 400 pounds to the acre. Then he sowed the seed after danger of our worst enemy, the Hessian-fly, was past, and rolled the ground with a heavy roller. The rains came, and in the warm, rich earth our seed found a congenial abode, and sprang quickly to life and flourished and grew strong in spite of winter's cold and rain. In early spring Mr. Farmer came to our aid in fighting the Weed Legion, and with a great fine-toothed harrow driven lightly over us swept off the weeds by millions, while our strong foothold preserved us unharmed from the iron teeth. Then we waxed strong and grew mighty. Wise old Nature, always appreciative of good work, helped us more than our weaker neighbors because we were better able to accept and make use of her well prepared soil, her warm and life-giving sun, and her refreshing, nourishing rains. And here is the result of wisdom. You see us, a proud army of wheat heads, ready to make a rich return to the pocket of the wise man who hath given us a chance to show what was in us."

In similar view would speak the 30- and 25-bushel fields. But the 10-bushel field would lift up its weakly heads, and, in a weak voice, say, "We are the product of the wisdom of fools. Our family is non-descript and nameless. Our parents were a bad lot, grown in poor soil, and having intimate acquaintance with the weeds. This soil is in possession of our old enemies, the weeds, to whom we have long been

subject. You see the surface is flat, and the field has never been drained. It was plowed once, harrowed once, and not manured. Our master is poor and says farming does not pay. He does not read the market and crop reports, and we heard him yesterday agree to sell us at 85 cents a bushel. Perhaps we are worth no more, as there are so many weeds among us; but the birds tell us that No. 2 Red Winter is selling in Chicago at \$1.05. We think our master had better go West." Have we answered Why?—*Farmers' Review*.

THE WAGES OF FARM LABOR.

A Washington letter says: An investigation of the rate of wages of farm labor made by the statistician of the Department of Agriculture, shows an increase of twenty-four per cent. since 1879 in the Eastern States. From 1875 to 1879 the decline was heaviest in manufacturing sections, where artisans, thrown out of employment, competed to depress the rate of farm wages. The advance since 1879 has been fourteen per cent. in the Western States and thirteen in the Southern. Comparing with results of former investigations at different periods, it is shown that wages declined gradually from 1866 to 1875; very heavily from that date to 1879, when a rapid recuperation began. An exception is noted in the South as to the period between 1866 and 1869, when the high price of cotton advanced the rate of wages. The fluctuation has been less in the South, the improvement in quality and efficiency in labor counteracting largely the general tendency to lower rates. Thus the average rate per month was \$16 when cotton was thirty cents per pound, and \$15.30 when cotton was twelve cents per pound. The influence of manufacturers in advancing local rates of farm wages is exhibited, as also the proximity of large commercial cities. The effect of varied agricultural industries on wages is shown by comparison of rates in contiguous districts. The districts of high wages are also those of large production and net profit in agriculture. The present average rate of wages are: In the Eastern States, \$26.61; Middle, \$22.24; Southern, \$15.30; Western, \$23.63; California, \$38.25. These averages indicate a recovery of the status of 1875 in the West, a near approach to the rate of that year in New England, and a partial restoration in the Middle States. There is still a decline of twenty per cent. or more from the inflated rates that followed the flush times immediately following the civil war.

Editorial.

THE STATE FAIR: ITS POSTPONEMENT AND ITS PROSPECTS.

The Fair has been postponed one week, say from the 25th of October to the 1st of November. The reasons for this action were good. Prior to the war the State Fair was held uniformly during the *first* week of November, which period is usually within the *Indian summer*; and all know what this kind of weather means. Since the war, and the adoption of our present Constitution, fixing the Tuesday after the *first* Monday in November for all political elections, the State Society has been compelled to drop its Fair *back* one week to the last in October. Under this rule, the date of the opening of the Fair was fixed for the 25th October. Without noticing the run of days, it has been found that the *last week* in October this year occurred at the earliest period and most remote from election-day, which also, by one day, was as remote as possible from the first of the month; and that the Fair, commencing on the first day of November and continuing three days, would not make a nearer approach to the general election-day than in former years. The President and Executive Committee were, therefore, prepared to entertain the suggestion of the Lynchburg Agricultural Society, that if the State Fair was advanced one week, it could also advance its Fair in like manner, and thus prevent a conflict with the days of the Piedmont and Staunton Fairs. For these and other good reasons, the postponement of the State Fair one week has been ordered.

The prospects of the State Fair, we may say, are *brilliant*. The better condition of the farmers by reason of the most bountiful crops known for many years; the activity in mechanical and other business pursuits; the restoration of easy transportation to the Fair Grounds by steam-cars from the centre of the city; the enquiries which are coming in from those who propose to exhibit; the interest manifested by the business men of Richmond in a splendid *trades-parade*; the fire-works for night exhibition in the city; the low fares which will be given by the railways. All these, and other things, contribute to give assurance that the approaching State Fair will be the best ever held.

We repeat, then, what was said in our last issue—*prepare to come to the Fair* and enquire at the nearest railroad station for particulars of personal and other transportation. Life-members who may buy, with their railway passes, a coupon attached for admission to the Grounds, will have the amount of same refunded on application to the Secretary on the Grounds.

THE PLANTER AS AN ADVERTISING MEDIUM.

RICHMOND, VA., September 9, 1882.

Col. W. C. Knight, Editor Planter :

During the week ending to-day I have received letters for goods and enquiries after farming implements from Rangoon, British Burmah, and Wellingborough, Northamptonshire, England. Parties stating that they saw my advertisement in the *Planter*, which they subscribe to and receive regularly.

This speaks well for the circulation of the *Planter*, and should commend it to advertisers, I think.

Very respectfully, &c., ASHTON STARKE.

The receipt of the foregoing letter from Mr. Starke somewhat surprised us. Whilst we have some subscribers *east* of the Atlantic and extending to British-India, and others *west* as far as California and Oregon, yet we had not thought that our *advertisements* would attract attention in these remote localities. It appears, however, that they do. And why not? The agricultural implements and machines manufactured in the United States are the best in the world. They are *artistic* as well as *essentially practical*. Then why should they not be appreciated in the old countries which use heavy and illy-constructed implements which their home markets only supply? *Progress* is a word which is now being understood the world over, and hence localities do not confine themselves to themselves, but look around and abroad for all they need.

We have some exchanges from the South American Republics, but no subscribers, and we are pleased to see that much attention is directed to the various manufactures of the United States of North America. There is a great future for the lands of the South and all the products of our manufacturers, wherever they may be, if they properly advertise themselves.

THE VIRGINIA STATE AGRICULTURAL SOCIETY.

OFFICE OF THE VIRGINIA STATE AGRICULTURAL SOCIETY,
RICHMOND, VA., September 13th, 1882.

To the People of Virginia :

To put the Virginia Agricultural Society upon a solid basis, it is necessary that it should have some funds ahead to protect it from casualties, and not be compelled to rely solely on its gate fees for its revenues.

I have therefore determined to appeal to you in behalf of the Society to largely increase its life-membership.

The material interests of all classes of people in Virginia are so intimately connected with the agricultural prosperity of the State, that the success of the Virginia State Agricultural Society is a matter of importance to them all. And as in my judgment the Society is calculated to improve the agriculture of the State and to advance the interests of every business connected therewith, I confidently ask you to sustain to Society in its efforts, and to aid the management to revive the interest in the welfare of the Society that in former days so strongly marked the conduct of the active men of our State.

When I remember the enthusiasm that used to pervade the meetings of the Society in its earlier days, and the emulation that those meetings produced in the improvement of our land, our crops and our stock of all kinds, I cannot but hope that our people will again take hold of the Society, and that our old members will see that the succession of membership is kept up in their families.

Certificates of life membership in the Society are obtained by the payment of twenty dollars, or if parties prefer it, by the payment of five annual instalments of five dollars each. Upon this subject address, at Richmond, Va., George W. Mayo, Esq., the Secretary, or your obedient servant,
WMS. C. WICKHAM, *President*.

We give place to Gen. Wickham's appeal in behalf of the State Agricultural Society. No institution has more benefitted the State than this; and had we time and space could prove it. Let the fact, then, be accepted, and come forward and sustain the Society as in former years. The State is prosperous in all the callings of her people, and the farmer, manufacturer, merchant, gardener, orchardist, viti-culturist, and the lawyers, doctors and preachers can all afford to contribute \$20 and secure a membership for life. The first and greatest privilege of such a membership is that of sustaining an organization in which there are no personal emoluments, and works for the encouragement of all the producing interests of the State; and the direct benefits, as some may regard them, are the free admission during the life of the member to the Fair Grounds of the Society, together with wife, sons under twenty-one years of age, and unmarried daughters; the right of exhibition at the Fairs without tax; and the right to participate and vote in all the general meetings of the Society.

The Society's roll of membership now contains names in every county, but in the past twenty-five years it has been sadly reduced by deaths, without a proportionate accession of new members. Now, before the opening of the next Fair on the *first day of November*, will not *ten* persons from each county come forward and take life-memberships and thus add *One Thousand* to the roll and \$20,000 to the Society's treasury.

We sincerely hope that President Wickham's appeal will be properly heeded.—ED. S. P.

WHAT WE SAW IN THE VALLEY.

We made a recent trip to the Valley, and in passing from Staunton to Harrisonburg, and thence to the Rawley Springs, saw some things that rather surprised us. It being our first visit to this beautiful portion of Virginia, our first surprise was a settled feeling of admiration. Admirable is the country for all that would seem requisite to constitute each homestead a place of health, beauty and happiness, and afford to the husbandman all the pleasures and profits which intelligent culture can reasonably demand. Our second surprise was, that the lands appeared to be *wearing out* under bad farming practices, and its occupants—satisfied with their beautiful mountains and streams—appear to rely on the bounties of Nature as a continued and inexhaustible supply which needs but little effort to perpetuate it. We never saw, or read of, any country so blessed by Nature and occupied by the homes of men, that did not require the fostering care of its occupants.

The matter with us is purely an agricultural one, and to this end our observations are directed.

First. We saw but little *vigorous* grass, except on the borders of streams.

Second. Large and beautifully undulating fields which might be in timothy, orchard grass, or clover, were in wheat or oat stubble, and but little show that either of these grasses had been sown.

Third. We saw plows following wheat stubble for *wheat again*.

Fourth. We saw new houses being erected to hold the commercial fertilizers which were required, in large quantity, to fertilize the fields which were to reproduce the same crops the coming year.

Fifth. We saw no regular rotation of grass and other fallow crops, interchanged with grain crops, for the perpetuation of fertility.

Sixth. We thought we saw, but we hope not, that the farms were *wearing out*.

These notes are made, as we have stated, on a very limited view, and what we did not see was judged of by what we did see. This is a rather unfair advantage we have taken, we will admit, but, at least, it opens the question, How far are our observations correct? Again; it may put our Valley farmers to thinking on the injudiciousness of repeated tillage, though they may attempt to pay the land back with the richest of commercial fertilizers. It appears to us, as a fixed fact, that land must *rest* in grass, with moderate pasturage, to secure continued fertility.

We would like for some observing farmer in the Valley to inform us

whether an established *rotation* does prevail; and if not, as we have supposed, are not their lands gradually wearing out for the lack of it? We will stand corrected if we are in error, and make the *amende honorable*.

SILK CULTURE.

ODELL, NEBRASKA., September 5th, 1882.

Editor of Southern Planter, Richmond, Va.:

As the subject of silk culture is receiving considerable attention in the United States, I thought a few items from this section might prove interesting.

I live about twenty miles from a colony of Russian Mennonites—a class of Russian citizens who formerly resided in Germany. Their religious convictions were such, however, that they could not serve in the army. About the year 1850 the German government insisted that they should serve or leave the country. The Czar of Russia then offered them a tract of land in his country, and agreed to exempt them from military duty. They accepted his offer, and have continued to reside in Russia from that time until they came here some seven years ago. Many are still in Russia, but several colonies can be found in this country, in Kansas and in this State, as well as a few in other localities. The Russian mulberry was introduced into their colonies in Russia by the Russian government for the purpose of silk culture, and to facilitate rain fall. They were compelled to buy these trees of the government—each land-holder must plant a certain number. After cultivating them until they learned their value, they voluntarily planted them very extensively, and learned that silk culture was not the only consideration in raising them. They found the timber very valuable for fence-posts—outlasting any Russian timber. It was also found very profitable for cabinet work, and was considered one of the most desirable trees for fuel. It also bore edible fruit, which was marketable in Russia. When they came to this country they brought the seed of this tree with them. They also brought the seed of several other trees, but planted these more extensively than all others combined. We believe that several of these trees will prove very valuable to nurserymen and fruit-growers here. The Russian mulberry is a very rapid grower. Trees, the seed of which was planted by the Mennonites, are now twenty feet high, and large enough for fence-posts. They grow very large and bear abundant crops of fruit. This fruit resembles blackberries in appearance. A very great per cent. are a jet black, and the balance a reddish white. They vary in flavor from sub-acid to sweet. When mixed with something tart and made into dessert, they are sometimes mistaken for raspberries. The habits of growth of this tree is like that of the apple tree. Many of the leaves are lobed or cut with from five to twelve lobes. The Mennonites also use it as an ornamental hedge plant, and it makes a beautiful hedge, and stands

shearing as well as any tree. In the estimation of some nurserymen this is the only tree sufficiently hardy to be valuable for silk purposes north of the fortieth parallel or north latitude. The Mennonites have interested themselves in the silk business to some extent since they have been in this country, and have some cocoons for sale.

G. F. CLARK.

The foregoing communication is from a very remote section of our country. It is interesting in its brief account of a peculiar *sect of religionists* and their proposed pursuit in respect to *silk culture*. Much is said in our agricultural journals of late of this business, which, it is thought, may be successfully pursued in almost any section of the United States. The Russian mulberry, too, may be something better than *morus multicaulis* which enfevered the country many years ago. We suppose the author of the communication can give information as to the seeds or plants of the Russian mulberry, if addressed at Odell, Nebraska Territory.—ED. S. P.

ANCIENT ENGLISH OAKS.

Among the ancient oaks of England few are more interesting than the gigantic ruin now standing in an arable field on the banks of the Severn, near Shrewsbury. It is the sole remaining tree of those vast forests which gave Shrewsbury its Saxon name of Schobbesburgh. The Saxons seized this part of the country A. D. 577, when they burnt the Roman city of Uriconium, where Wroxeter now stands, four miles from the village of Cressage; and underneath this now decrepit dotard it is said that the earliest Christian missionaries of those times—and possibly St. Chad himself—preached to the heathen before churches had been built. The Cressage Oak—called by the Saxons Christe-ache (Christ's Oak)—is probably not less than fourteen centuries old. The circumference of the trunk was about 30 feet, measured fairly at a height of five feet from the ground; but only about one-half of the shell of the hollow trunk now remains. It still bears fifteen living branches, each 15 feet or 16 feet in length. A young oak grows from the centre of the hollow.

The noted oaks of England, thanks to those who have preserved them, thanks to the universal veneration for timber, and to a stirring and lengthened history, are innumerable. Windsor Forest is particularly rich in historic oaks, and Sherwood Forest, though disafforested, still contains some memorial timber, like Needwood, once a crown forest, now a fine estate of well-farmed land. Dryden's

“Three centuries he grows and three he stays,
Supreme in state, and in three more decays.”

is a poetical statement, and some of the dates on trees cut down in Sherwood forest, and marked 600 years before, in the time of King John, prove that it is an under-estimate.—*The Gardeners' Chronicle*.

The Southern Planter.

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

Expired subscriptions will be designated by a blue X in pencil on the cover.

TERMS OF ADVERTISING.

PAGE RATES.

	1 Mon.	3 Mons.	6 Mons.	12 Mons.
One-eighth page	\$ 2 50	\$ 7 00	\$12 00	\$ 20 00
One-fourth page	5 00	12 00	22 50	40 00
One-half page...	9 00	25 00	45 00	80 00
One page.....	15 00	40 00	80 00	140 00

COLUMN RATES.

	1 Mon.	3 Mons.	6 Mons.	12 Mons.
One inch.....	\$ 1 50	\$ 4 00	\$ 7 00	\$12 00
Two inches.....	3 00	8 00	14 00	24 00
Three inches....	4 00	10 00	20 00	40 00
Half column....	5 00	12 00	25 00	50 00
One column....	9 00	25 00	45 00	80 00

Special rates for cover.

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

Look out for cross mark on wrapper. This indicates that your subscription is unpaid.

EDITORIAL NOTES.

TO OUR RICHMOND CITY SUBSCRIBERS.

We have much trouble with each issue of our Journal to secure its prompt delivery to subscribers in the city, and to advertisers to whom we send it without charge. This trouble grows out of the postoffice regulations which require all mailable matter not deliverable through boxes or the *general delivery* to be *prepaid by stamps* if delivered by the *carriers*. We cannot know who have boxes at the postoffice, or who call for their mails at the *general delivery*. Hence we have each month a large number of papers returned, and their proper delivery is delayed a week or longer. When these papers are returned to our office, we put on them the necessary stamps and place them back in the postoffice for delivery by the carriers. The result is a delay in the receipt of our

paper by our subscribers, and inflicts on us a heavy mailing cost which we have to prepay. In view of these facts we have to request that all subscribers and advertisers who get their mail matter through the carriers will call at the *general delivery windows* for the *Planter* on the *first* day of each month, and thus get it; and the same request is made of subscribers in Henrico and Hanover counties who get their mails through the city postoffice. The advantage to them will be the prompt receipt of the *Planter*, and to us it will save a heavy expense. We mail our Journal to every State in the Union and to Canada, at what are termed *pound rates*—two cents per pound, or about *one-sixth* of a cent for each copy, whilst a city delivery by the hands of carriers requires us to *prepay each copy* with a stamp of not less than *two cents*, and sometimes *three cents*. The plan we suggest will be for the material benefit of ourselves and our patrons in the city.

TOBACCO NOTES.—1. Although born and reared in the centre of the tobacco section of Virginia, we have said less than we ought, probably, about this great staple. Its culture is thoroughly understood; and, possibly, it is too much regarded as the *money crop*, to the hindrance of a system of diversified farming which would bring better profits. The various reports we get through our exchanges as to production, sales, shipments, etc., in tabulated forms, will not edify the *planter*, and are made mostly in the interest of *dealers*, and therefore we cannot afford space for them. The planters, who must take their chances in the *lottery* of prices, must be content to *produce* only. It is useless for them to bother their heads with bewildering statistics which will do them no good.

2. It is said that Virginia this year may produce two-thirds of an average crop, and that the prospects are best in the bright section and worst in the dark. Such is the latest statement of the tobacco journals and other printed reports.

3. Our advice to all planters is, to manage their crops well so as to disarm all

dealers of frivolous complaints to lessen prices when the day of sale comes.

4. We ask the leading tobacco journal of New York why an extract was made from our serial articles on "Farmers and Farming in Virginia in the Olden Time" on the cultivation of tobacco in 1672, without credit to the *Planter*? The manuscript of the Report of 1672 is ours.

5. We should be glad to have and print anything from a real tobacco planter—his views of the crop, its culture, management, etc., which will be of practical value to others.

A WORD TO THE WEEKLY PAPERS.—We do not wish to interfere with other people's business, or even to appear to do so. We have, however, a word to say to the *weekly papers* of the country. It is noticeable that many of these papers purchase their stock *printed on one side*, which printing is of a stereotyped character done at the North. This is all legitimate, and even commendable economy, in localities where it is difficult and expensive to get suitable compositors and convenient press facilities, and our object is simply to make a suggestion in the interest of agriculture and other industries of the State. It is this: keep open on the unprinted side of your paper a column which may be devoted to the methods of agriculture, etc., in your own State, which may be made up by special contributions, or selections from your own agricultural journals. In this way the agricultural reading will be localized, and better adapted to the wants of readers.

WE call special attention to the advertisement of *J. E. Doherty*, merchant tailor. There is no one whose business we can more thoroughly endorse than Mr. Doherty. He has been supplying us our clothing for for the past fifteen years, and we never had a mis-fit or a suit that did not give entire satisfaction. He uses the best materials, which retain color, and it is a remarkable fact that we never were able to wear his clothing out. We have had to get *new* when we had worn the *old* so long as to

make us ashamed of ourselves. His prices, too, are moderate, and we believe less than charged by good houses in the large northern cities. Try Doherty and, our word for it, he will please you.

LIBERTY, VA., September, 5, 1882.

Mr. Editor,—The frequent occurrence of the advertisement of the "Willard Lottery Scheme," and also the occasional endorsement editorially of the manager of the same, one "Col. W. C. D. Whips," in your trusty farm magazine all during last summer, attracted the attention of many of your subscribers and readers, and they are now in vain looking either for the drawing to take place, or to have a return of their money, as was the promise made in the last advertisement. Can you throw any light on the plans of the company, and say what they mean to do? *Many letters have been written, but no answers are ever returned.* Please give us some advice upon the subject. SUBSCRIBER TO S. PLANTER.

We wish it distinctly understood that the present management of the *Southern Planter* had nothing to do with the lottery scheme referred to, or any *endorsement* thereof. Col. Saunders, a previous editor of the *Planter* did, we believe, publish an advertisement for Mr. Whipp's, and made some editorial notices of it. We know no more about the matter than *Subscriber* does, and must look on it with the same suspicious eye. If this should fall under the notice of Col. Saunders, he can probably explain.

MEDICAL NOTES FOR THE HOUSEHOLD.

[Selected for the Southern Planter.]

Common rice, parched brown, like coffee, and then bottled and eaten in the ordinary way, without any other food, is, with quietude of body, one of the most effective remedies for troublesome looseness of the bowels.

Some of the severest forms of the distressing ailment called dysentery, that is, when the bowels pass blood, with constant desire but vain efforts to stool, are sometimes entirely cured by the patient eating a tablespoonful at the time of raw beef cut up very fine, and repeated at intervals of four

hours until cured, eating and drinking nothing else in the meanwhile.

If a person swallow any poison whatever, or has fallen into convulsions from having an overloaded stomach, an instantaneous remedy is a heaping teaspoonful of common salt and as much ground mustard, stirred rapidly in a tea-cup of water, warm or cold, and swallowed instantly. It is scarcely down before it begins to come up, bringing with it the remaining contents of the stomach; and lest there be any remnant of poison, however small, let the white of an egg, or a tea-cup of strong coffee be swallowed as soon as the stomach is quiet; because these very common articles nullify a larger number of virulent poisons than any medicines in the shops.

In cases of burning or scalding the body, immersing the part in cold water gives entire relief at once. Meanwhile, get some common white flour and apply it an inch thick on the injured part the moment it emerges from the water, and keep sprinkling on the flour through anything like a pepper-box cover, so as to put it on evenly. Do nothing else, drink nothing but water, eat nothing until improvement commences, except some dry bread softened in weak tea of some kind. Cures of frightful burns have been made in this way, as wonderful as they are painless.

Erysipelas, a disease coming without premotion, and ending fatally in three or four days, is sometimes very promptly cured by applying a poultice of raw cranberries pounded, and placed on the part over night.

Insect bites, and even that of a rattlesnake, have passed harmless by stirring enough of common salt into the yolk of a good egg to make it sufficiently thin for a plaster, to be kept on the bitten part.

Neuralgia and toothache are sometimes speedily relieved by applying to the wrist a quantity of bruised or grated horseradish.

Costive bowels have an agreeable remedy in the free use of ripe tomatoes at meals—their seeds acting in the way of the white mustard seeds or figs, by stimulating

the coat of the bowels over which they pass, in their whole state, to increased action. A remedy of equal efficiency in the same disease is cracked wheat, that is, common white wheat grains broken into two or three pieces, and then boiled as soft as rice, and eaten mainly at two meals of the day, with butter or molasses.

We once saved the life of an infant which had been inadvertently drugged with laudanum, and was fast sinking into the sleep which knows no awakening, by giving it strong coffee, cleared with the white of an egg, a teaspoonful every five minutes until it ceased to be drowsy.—*Hall's Journal of Health.*

NATIONAL COTTON PLANTERS' ASSOCIATION OF AMERICA.—We are informed by the *advance sheets of the Planter's Journal*, of Vicksburg, Mississippi, organ of the Association, that the next annual meeting will be held at *Little Rock*, Arkansas, on 16th and continue to 21st of the present month. Whilst *cotton* is the leading idea of this Association, and claims to be the *king* of Southern products, yet there will be, as we are assured by the circular of the Society, much work done in promoting all the productive interests of the South; so that *cotton* is disposed to divide its honors fairly with all other products. Go and see.

CATALOGUE OF BELMONT STUD AND STOCK FARM, near Charlottesville, Va., S. W. Ficklin, Proprietor.

This is a neat pamphlet setting forth the pedigrees, etc., of all of Mr. Ficklin's valuable stock of horses, cattle and hogs. Mr. Ficklin will have a public stock-sale on his place on 3d October, 1882, of which hand-bills are distributed. It will be a good opportunity for farmers to supply themselves with thoroughbred stock.

AMERICAN POLITICS (non partisan) from the beginning to date. By the Hon. Thos. V. Cooper, of Pennsylvania, and H. T. Fenton, Esq., of the Philadelphia Bar. Pp. 1058. Published by the *Fireside Publishing Company*, No. 20, North 7th street, Philadelphia.

We have been in receipt of this book

several months, and had hoped to get a proper notice of it prepared by a friend better informed on American politics than we are. It seems to be a complete compendium of political history from colonial times to the present year. It embraces the platforms of all parties; great speeches by great men on all issues; elections, State and Federal, from the beginning to this date; a tabulated history of all Federal and Confederate debts; and much other similar information. It contains also what is designated the *Federal Blue Book*, with all the Federal officers, their duties, locations, salaries, and an accurate statement of the influences by which they are obtained. The chief value of the book is its *non-partisan character*, which is fully maintained so far as our examination and knowledge extend. It should be in the possession of every educated citizen of the country. We have no information as to its price, but this may be ascertained by a postal card addressed to the publishing company.

We have received several favors from the musical publishing house of *Luddon & Bates*, Savannah, Georgia, and now acknowledge their latest donation—"Send Me a Leaf."

"Send Me a Leaf."

"Send me a leaf ere the summer dies,
Kissed by the light of my native skies;
Send me a leaf from our trysting tree,
Over the sea, love, over the sea."

THE BREEDERS' GAZETTE. Chicago, Illinois: Saunders & Co., publishers.

This is one of our best exchanges, devoted exclusively to live-stock. It is well illustrated, and all of its articles will be interesting to stock breeders. \$3 per year, or \$2 to clubs of ten.

THE PLANTERS' JOURNAL, Vicksburg, Miss., is one of our latest exchanges. We have received the August number, which is filled with matter of value to Southern agriculturists. We think it worthy of praise and patronage, and commend it to the attention of all who are connected with

the Southern interests of the house and field.

THORBURN & TITUS, Seedsmen, 158 Chambers street, New York.

We have been favored with their Catalogue, which seems to be complete in the line of grass, garden and flower seed.

THE ART AMATEUR, a monthly devoted to the cultivation of art in the household. M. Marks, editor and publisher, 23 Union Square, New York.

The September number of this journal is an excellent specimen of *art* in its varied illustrations, besides the art topics, which are treated of in a practical and interesting manner.

Price, \$4 per year, or 35 cents per copy.

THE MONTHLY WOOL-CIRCULARS of W. C. Houston, Jr., & Co., wool commission merchants, Philadelphia.

We are in the regular receipt of these reports, and farmers and others dealing in wool should correspond with this house.

PEDIGREES, Descriptions, etc., of Short-horn Durham cattle; improved Kentucky sheep; Angora goats; Woburn, Irish-Grazier, White-Bedford and other hogs. By Col. Robert W. Scott, near Frankfort, Kentucky.

Col. Scott is an old and reliable breeder, and all farmers who are interested in stock-breeding, or desire to improve their farm stock, may find it to their interest to communicate with him.

THE TEXTILE RECORD, published in Philadelphia, Pa., is a large and well illustrated monthly on all textile materials, fabrics, and subjects.

We acknowledge the usual monthly reports from the Agricultural Department at Washington of the condition of crops, and of special reports from the same source, of the climate, soil, and agricultural capabilities of South Carolina, Georgia and Florida.

THE NORTH AMERICAN REVIEW for September contains, among other good matter, a significant article by H. M. Hydman, the

English radical leader, on "The Coming Revolution of England;" and also an interesting account by Dr. H. Schliemann of his recent discoveries in ancient Troy.

THE REVIEW AND JOURNAL of the American Agricultural Association for August—Quarterly.

It has a rich table of contents, such as "The Composition of Grapes at Various Periods of Development," by Clifford Richardson; "The Railroad and the Farmer," by Hon. Ed. Atkinson; and other matter of equal merit; and, as a frontispiece, a portrait of the Hon. Hiram Sibley

PROCEEDINGS of a Convention of Agriculturists held in the Department of Agriculture, Washington, January 10th to 18th, 1882.

This convention met on the invitation of Commissioner Loring, and its addresses, reports, general proceedings, and informal discussions by leading farmers of the country of subjects touching nearly all branches of practical agriculture, makes a book of 208 pages, which may be had, we suppose, on application by letter to the Department of Agriculture.

HAND-BOOK OF THE STATE OF MISSISSIPPI. By E. G. Wall, Commissioner of Agriculture and Immigration.

It gives us pleasure to acknowledge this well-gotten-up book from our old friend and acquaintance, Major Wall, who so well fills the position of Commissioner. It has been received late, but we welcome it, and will, for our respect for its compiler, give it a careful examination.

The *Planter* has a goodly number of subscribers in Mississippi, and is exchanged with its leading papers, and so we have a home-like feeling for the State.

DESCRIPTIVE CATALOGUE of grape vines and small fruits, by T. S. Hubbard, Fridonia, N. Y. See his advertisement in the *Planter*. Send for his catalogue.

STRAWBERRIES, GRAPES & C.—As the time for fall planting is approaching, we call at-

tention to the advertisement of H. S. Anderson's Cayuga Lake Nurseries. We have received a catalogue of his fine selection of strawberries, grapes, raspberries and orchard fruits. Send to him for his price-list at Union Springs, N. York.

HOUSEHOLD RECEIPTS.

SUMMER DRINKS.

LEMON BEER.—One pound of sugar; one lemon sliced; one tea-cup of yeast; one gallon of boiling water, one ounce of ginger bruised. When cold strain through a fine cloth, bottle and tie cork or use bottles with patent stoppers. It will be fit for use in 24 hours, it is very palatable and refreshing. Keep in a cool place.

CORN BEER.—Five gallons of water; two quarts of molasses; one quart sound corn; put all into a clean keg and shake well, and in a few days a fermentation will be brought on as nicely as with yeast, keep the keg bunged tight. It may be flavored with oil of lemon &c. The corn will last five or six makings. If it gets sour, add more molasses in above proportion. This drink is cheap and healthy.

CREAM SODA WITHOUT A FOUNTAIN.—Four pounds coffee sugar; 3 nutmegs, grated; 3 pints water; whites of 10 eggs, well beaten; 2 ounces oil lemon, or the equivalent of extract, or other flavor to suit; 1 ounce of gum arabic. Mix; place over a gentle fire, stirring well; remove, strain and divide into two parts. Into one part put 8 ounces bicarbonate soda; into the other 6 ounces tartaric acid, shaking well. When cold, pour three or four spoonfuls from each into separate tumblers, one-third full of water; stir and pour together.

GINGER ALE.—Put 4 gallons of clear soft water into a clean cask or earthenware pan, with a wooden tap inserted about an inch from the bottom; mix with this about 6 ounces of bicarbonate of soda, and allow it to stand about 12 hours to settle; draw it carefully off into another tub by means of the tap, but do not disturb the sediment which settles to the bottom of the first tub. Mix with this quantity 2 pounds of loaf sugar, stirring until the sugar is dissolved; flavor with the extract of ginger ale; color with burnt sugar, etc.; fill glass lemonade bottles with the usual quantity, adding to each bottle 2 scruples of crystal tartaric acid; drive in the cork immediately, and tie it down with wire in the usual way;

in an hour, or as soon as the acid is dissolved, the ale is ready for use, and will open with a sharp report.

SPECIAL NOTICE TO OUR SUBSCRIBERS.

Our present issue will contain bills for all subscribers who are in arrears. The number is very large, but mostly confined to the current year. Still, there are those whose arrearages range from *one to three* years. This only shows how the overlooking of small things, at the proper time, makes an accumulation. It is really unjust to a publisher of a monthly, or any other form of journal, that subscribers should receive and read their papers and neglect to pay for them. We can specify on our list subscribers who are known to be in prosperous circumstances, and even wealthy, who have let their subscriptions remain unpaid for several years. In our last issue we gave the laws and post-office regulations in respect to delinquent subscribers, and would invite attention to them of all who may find bills in our present issue.

The whole thing, in a nut-shell, is, that subscribers do not intend to disregard their obligations, but put off for a convenient opportunity to remit, and then forget when the time comes.

Let us, then, have our accounts balanced, and editor and readers will feel all the happier by it.

POULTRY.

If you want fowls for general purpose, take the Leghorns, Hamburgs or Spanish. or some would prefer Dorkings, Polish, Houdans or Crevecœurs. These last named breeds are what we call constant layers; but for eggs alone there is no fowl in existence that can compete with the Leghorn. They lay more eggs, consume less food, and for early, fast-growing spring friers they will out travel any breed.

Perhaps at this time it would be in better place to say a little towards the care of fowls. There is no other class of stock on the farm, as a general rule, that is so sadly neglected as the domestic fowl. Why neg-

lect this great source of human sustenance in such a way? Perhaps some of my readers will hoot at the idea, but it is true there are more fowls and poultry consumed in the United States than there is beef or pork. This looks like a big thing, but the statistics show that such is the case. Look at the consumption of eggs alone; it is almost as great as that of pork. Now is the time to clean and whitewash your roosts, and be sure and get ahead of all vermin, for they make their start in spring, and are more easily gotten rid of at the start than after they have your hen-houses all polluted. A good way to keep them from starting, is to pour coal oil on your roosts and any other place about your hen-houses where they are likely to make a start. Spring generally brings disease with it, and a good way to keep fowls healthy is to keep a lump of alum in their drinking water; the sour from the alum mixed with water, helps to tone up their systems and keep them in healthy condition. To make fowls healthy and lay well, a good way is to give change of diet—say soft food in the former part of the day and whole grain in the evening; and green food is very essential for the health of fowls, and also necessary to insure good success in hatching. But every farmer ought to see to it and have good fowls on his farm, for the first reason it takes no more to feed good ones than it does scrubs, and if he wants to sell he won't have one-half the trouble to sell blooded stock that is usually the case with common scrub stock. And I say there is not any stock on the farm that will pay more interest on capital invested than will well-fed fowls.—*Alex. Bickett in Journal of Agriculture.*

WHY is Mrs. Lydia E. Pinkham's Vegetable Compound like the Mississippi river in a spring freshet? Because the immense volume of this healing river moves with such momentum that it sweeps away all obstacles and is literally flooding the country.

A large part of the Babama Islands is devoted to pine-apple culture. A million and a half of fruit have been collected from a single tree.

WATER PROOF BUILDING MANILLA

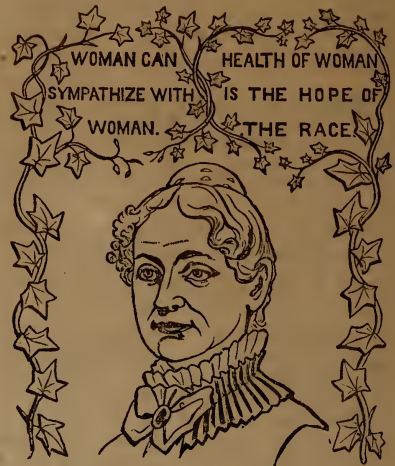
This water-proof material, resembling fine leather, is used for roofs, outside walls of buildings, and inside in place of plaster. Catalogue & samples free. Established 1866. **W. H. FAY & CO.**
Oct—3t. CAMDEN, N. J.

INOCULATION OF ANIMALS

In the June number of the *Medical Record*, James Law has an exceedingly interesting article on the mitigation of the malignity of disease germs. A portion of the article is devoted to a consideration of the lung-plague in cattle, and while not containing anything that is new to any one who is perfectly familiar with the disease, it does contain some things that will be new to the general reader. The lung-plague, so-called, is not necessarily a disease of the lungs. Prof. Law, in his article, truly says that it is possible to inoculate the disease in the tail. This can be done, too, with the effect of inoculation or vaccination, and it will protect the animal from future attacks as certainly as if the disease had been developed in the lungs. The professor says that some who are more witty than wise have ridiculed the idea of thus inoculating an animal, but that their nomenclature was at fault and not the inoculation; that the specific disease, whatever it may be called, has been really produced in the tail, and that the subject of the inoculation was made proof against what is called the lung-plague. The plague is a local disease which will develop in any vascular structure of a susceptible animal in which it may be implanted. The germs inhaled into the lungs prey upon the lungs alone, and if other germs are placed upon the raw surface of the tail they will develop in the tail only, but in both cases the disease affects the system in such a way that the animal will not again have the disease, however much it may be exposed.

If the tail is inoculated, the severity of the disease will depend greatly upon the depth to which the poison is planted. The exudation and swelling rarely exceeds the size of a hen's egg. But in the lungs the air-passages are closed, preventing a free ingress of oxygen, and it is not uncommon for the mass of exudation to weigh as much as thirty pounds, besides an enormous liquid effusion in the pleuræ. In Australia, the professor says, the inoculation is clumsily but successfully performed, by drawing a worsted thread, smeared in the exudate, through the connecting tissue beneath the skin of the tail. This is a deep insertion, but the loose texture of the worsted serves to favor the admission of air and to counteract any dangerous change in the virus.

"ROUGH ON RATS."—The thing desired found at last. Ask druggists for "Rough on Rats." It clears out rats, mice, roaches, flies, bed bugs. 15c. boxes.



Yours for Health
Lydia E. Pinkham

LYDIA E. PINKHAM'S VEGETABLE COMPOUND.

A Sure Cure for all FEMALE WEAKNESSES, Including Leucorrhœa, Irregular and Painful Menstruation, Inflammation and Ulceration of the Womb, Flooding, PROLAPSUS UTERI, &c.

☞ Pleasant to the taste, efficacious and immediate in its effect. It is a great help in pregnancy, and relieves pain during labor and at regular periods.

PHYSICIANS USE IT AND PRESCRIBE IT FREELY.

☞ FOR ALL WEAKNESSES of the generative organs of either sex, it is second to no remedy that has ever been before the public; and for all diseases of the KIDNEYS it is the *Greatest Remedy in the World*.

☞ KIDNEY COMPLAINTS of Either Sex
Find Great Relief in Its Use.

LYDIA E. PINKHAM'S BLOOD PURIFIER will eradicate every vestige of Humors from the Blood, at the same time will give tone and strength to the system. As marvellous in results as the Compound.

☞ Both the Compound and Blood Purifier are prepared at 233 and 235 Western Avenue, Lynn, Mass. Price of either, \$1. Six bottles for \$5. The Compound is sent by mail in the form of pills, or of lozenges, on receipt of price, \$1 per box for either. Mrs. Pinkham freely answers all letters of inquiry. Enclose 3 cent stamp. Send for pamphlet. *Mention this Paper.*

☞ LYDIA E. PINKHAM'S LIVER PILLS cure Constipation, Biliaryness and Torpidity of the Liver. 25 cents.

☞ Sold by all Druggists. ☞ (3)



Sent FREE!
TREATISE ON
EVAPORATING
FRUIT
Profits and General Statistics.
American Mfg Co., Waynesboro, Pa

fe 1—12t

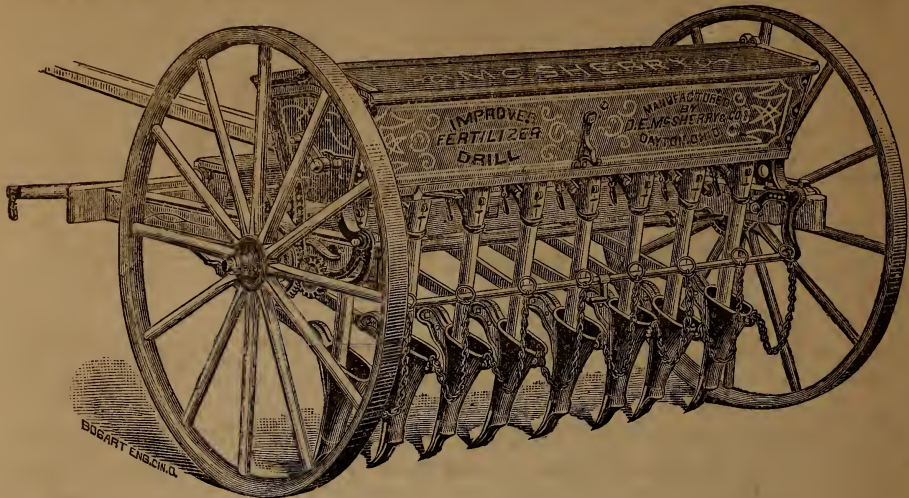
FARMING IN RYHME.

I'm sure I am not far wrong to call the times alarming,
 Which fact alone will justify a short essay on farming ;
 The subject's full of interest, in any way we view it—
 Success or failure much depends on the manner we pursue it.
 Experience, if nothing else, teaches us one thing,
 That cotton now, if it ever was, is no longer king ;
 But corn and hogs reign instead—'twill be a happy day
 When every farmer in the land acknowledges their sway.
 Raising cotton, nothing else, and buying our supplies
 From the farmers 'way up North is anything but wise ;
 And such a course, if still pursued, can lead us but one way,
 And that is to poverty and ultimate decay.
 Then to my brothers every where, this advice I give :
 When you settle at your home, first prepare to live ;
 Build ample shed-room for your stock, to shelter them from rain ;
 Build ample barns to store away your surplus hay and grain ;
 Plant ample fields of yellow corn, sow barley, wheat and rye,
 And never let us hear again that a hog must " root or die."
 Curtail your now vast cotton fields, divide them into lots
 Of ten or twenty acres each, improve the wornout spots,
 Prepare your land quite thoroughly ; when you plow, plow deep,
 And stock your farm with cattle, horses, mules and sheep.
 Sow grasses in abundance, and set your land in clover,
 And when you have a hog to die, just let him die all over.
 If you like, raise cotton—I think it very well
 To have a surplus bale or two to take to town and sell !
 But be ye sure 'tis surplus, no extra hands required,
 No orders drawn on merchants to pay for hands you've hired.
 In such case 'tis very well to have a few such bales,
 For then you simply pocket the proceeds of these sales.
 This money's yours, and with it do just as you please—
 Buy corn to feed your surplus stock or simply take your ease,
 Or, better still, invest in stock, as has been done before,
 Start within your neighborhood a co-operative store,
 And if I'm not mistaken, 'twill pay you in the end
 Good interest on your money and a handsome dividend.
 These simple hints, my brothers, if practiced, I am sure,
 Will shield us from our enemies, and thus we may endure
 The universal onslaught of enemies around us,
 Whose poisoned darts and arrows literally surround us.
 In short, my brothers, make your home a home in every sense,
 Where one can live in princely style at a very small expense.
 Seek not for princely wealth and power, but leave to your descendants
 'The greatest of all earthly boons, simple independence.
 I've mentioned stock of all kinds—barley, wheat and rye—
 Those essentials of the farm, which no one can deny.
 But of all essentials if you'll lead a happy life—
 By all means let the farmer have a true and loving wife ;
 And when you have her, crown her—let her have full sway,
 As queen o'er all the household let her have her way.
 Chickens, eggs, and butter, waffles, battercakes,
 And numerous other dainties the careful housewife makes,
 Will reward your confidence ; you'll think your wife the best—
 That no man living 'neath the sun is half so truly blest.
 And, finally, my brothers, I must admonish you,
 It matters not what others do—to yourself be true.
 Scan public questions closely—be careful whom you choose,
 And force your public servants to represent your views—
 For just as sure as all effects must have a certain cause,
 You cannot hope to prosper unless you have good laws.

J. A. FLEECE—in *Guild Gazette*.

WATT & CALL, Farming Implements and Machinery,

1444 Main St. (Cor. 15th) and 1518 and 1520 Franklin St., RICHMOND, VA.



The MCHERRY DRILL—either as a *Plain Drill* or as a *Combined Grain and Fertilizer Sower* is the BEST ON THE MARKET. Has the genuine force-feed. Fully warranted. Send for special Drill Circular.

THE AUBURN WAGONS are manufactured to order for us by the E. D. CLAPP MANUFACTURING COMPANY, the founder of which has had an experience of thirty-five years, and has made the building of wagons a study.

We offer these wagons as the strongest built and best finished on this market, and invite a comparison with any. Will meet prices of any first-class wagon, and warrant them in every respect.

ENSILAGE CUTTERS AND FODDER CUTTERS of all sizes for hand or power, with and without patent-safety fly wheels. Our prices and styles cannot fail to meet the requirements of all. We guarantee to cut with less power one-third more than any other machines one-third larger in size.

CIDER AND WINE MILL.—The cheapest and best Mills made, with two tubs; will extract more juice than any mill of a similar kind.

Send for Descriptive Circular of FRUIT, WINE AND JELLY PRESS; should be in every household; will extract the entire substance from all kinds of fruit and berries uncooked *in one operation*.

GRAIN AND FERTILIZER DRILLS with genuine force feed.

PLOWS AND CASTINGS of every variety. Our IMPROVED CHILLED PLOWS, as now constructed, are the most economical in use.

PRICES OF REPAIRS REDUCED.

HAY PRESSES, MOWERS, CORN AND COB CRUSHERS, CORN SHELLERS, PUMPS, FARMING TOOLS of every description. GARDEN SEEDS of every variety from selected stock. Now receiving a large and varied stock of TURNIP SEEDS.

Catalogue of Implements mailed free to any address.

WATT & CALL, Main Street, corner Fifteenth.

On receipt of six cents, for postage, we will send a handsome book on Ensilage bound in cloth, of seventy pages. It will be of great assistance in building silos and preparing ensilage.

Aug—1y

J. W. FERGUSSON & SON,
BOOK AND JOB PRINTERS
—AND—
ENGRAVERS,

Corner of Main and Fourteenth Streets,
RICHMOND, VA.

ORDERS from Clerks of Courts, Country Merchants, Colleges
and Schools promptly attended to.

We have unusual facilities and many years experience in the
printing of every description of TOBACCO LABELS, in plain black,
bronze, and in colors. oct—1t

Improve Your Dairy Stock!!

REGISTERED JERSEY BULLS AND BULL CALVES!

FROM SIX TO TWELVE MONTHS OLD,
Bred from Superior Butter Cows,

FOR SALE AT MUCH LESS THAN THEIR REAL VALUE
IF APPLIED FOR SOON.

A JERSEY BULL will pay five times his cost in a few years, as the demand for
GRADE JERSEY COWS is now already greater than the supply, and is annually
increasing; and they can always be sold at much higher prices than the grades of other
breeds.

Apply in person, or address

Rowe's Co-operative Stock Farm,

AUGUST 25th, 1882.

[Sept—1t]

FREDERICKSBURG, VA.

OUR ENGINES

Are constructed with a special regard to **PROTECTION AGAINST ACCIDENTS** in the employment of such labor as we have in the Southern States. They are effectually protected against **EXPLOSION**. Much pains has been taken in their manufacture to make them perfect in every **OUR PRICES ARE LOW**, and you will find them so if you will compare these Engines with others in quality and power (not the estimated, but the actual power). *Write us for further particulars.*

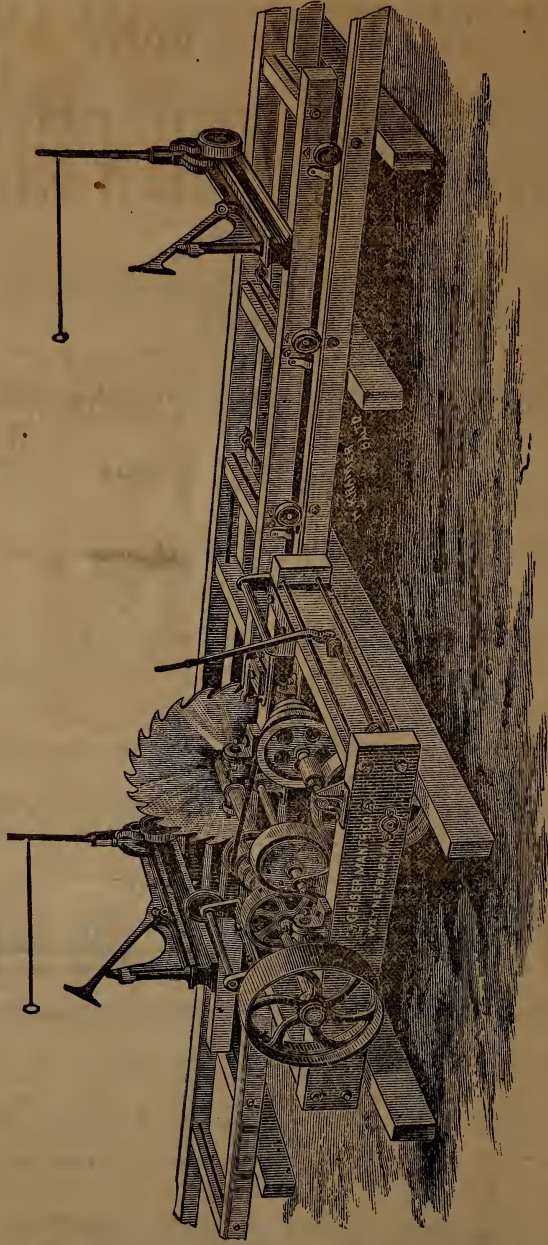
SAW MILLS

This is our superior and durable Saw-Mill, arranged with Independent Ratchet, Head-blocks, Steel Mandrel, furnished with self-oiling journals with non-friction boxes, adjustable set, to enable you to line your Saw at will without moving frame. We have the most improved feed motion in this mill. We can furnish them with as much carriage and ways as may be desired, and any style head-blocks either screw, independent ratchet or simultaneous independent ratchet.

Prices low. Write us.

We are determined to avoid such material and machines as are not really durable and good. We are going to furnish our customers with goods that will last them, and with which they can make money **IF THEY TRY.**

H. M. SMITH & CO., Manufacturers and General Agents, Richmond, Va.



ELLERSLIE FARM.
THOROUGHbred HORSES,
 Sherthorn Cattle, Cotswold Sheep,
 AND
BERKSHIRE PIGS
Bred and For Sale by
R. J. HANCOCK,
 Overton, Albemarle Co., Va.

GIVEN Gold Watches.
 AWAY;
SILK DRESSES and FANCY GOODS
Gift with Every Book!
\$1000 WORTH OF USEFUL GIFTS
WITH EVERY 1,000 BOOKS.
 Send 3c. Stamp for Catalogue. Agents Wanted.
PHILADELPHIA PREMIUM BOOK CO.,
 252 north Eighth street, Philadelphia, Pa.
 mch 15 -12t

Floreston Cologne.
 A New and Fashionable Perfume, Fragrant, Refreshing, Lasting. Sold by dealers in Drugs and Fancy Goods. Hiscox & Co., N. Y.

PARKER'S GINGER TONIC.
 Ginger, Buchu, Mandrake, Stillingia and many of the best medicines known are combined in **PARKER'S GINGER TONIC**, into a medicine of such varied and effective powers, as to make it the greatest Blood Purifier and Liver Regulator and the Best Health and Strength Restorer ever used.

It cures Dyspepsia, Rheumatism, Neuralgia, Sleeplessness and all diseases of the Stomach, Bowels, Lungs, Liver and Kidneys.

Remember! This Tonic never intoxicates, cures drunkenness, is the **Best Family Medicine** ever made, and is entirely different from Bitters, Ginger Preparations and other Tonics. None genuine without signature of Hiscox & Co., Chemists, N. Y.

Parker's Hair Balsam
 The best, cleanest and most economical hair restorer and dressing.
 Sept.



LANDRETH WHEAT!

NEW UNSURPASSED WINTER VARIETY
 Send for Descriptive Circular, Testimonials, Prices, &c. Address postal card to
D. LANDRETH & SONS
 SEED GROWERS, PHILAD'A, PA.
 oc-2t

HOLLAND BULBS



ROSES AND PLANTS

MILLIONS OF THEM
 Our Fall Catalogue is the finest and most complete ever issued. Full instructions for culture by an experienced horticulturist. Sent FREE.

HIRAM SIBLEY & CO.
 SEEDSMEN,
 Rochester, N. Y. & Chicago, Ill

THOROUGHbred Shorthorn Cattle.

MERINO SHEEP and BERKSHIRE PIGS. Bred and for sale, at moderate prices, by

S. S. BRADFORD,
Culpeper, Va.

E. J. GREGORY & CO.,
 (Successors to Bain, Parrack & Gregory.)
COMMISSION MERCHANTS,
 102 SHOCKOE SLIP, RICHMOND, VA.

[E. J. GREGORY, late of Bain, Parrack & Gregory.]
 Prompt personal attention given to the sale of all produce consigned to us. Leaf Tobacco, Cotton and Grain specialties.

D. E. DAVIDSON, Book-Keeper.
W. V. GREGORY, Ass't Salesman. fe 1-12t

JOHN E. DOHERTY,
822 EAST MAIN STREET,

Solicits an examination of his

Fine Stock of Foreign Goods
FOR FALL AND WINTER.

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 guaranteed.

VIRGINIA AGRICULTURAL AND MECHANICAL

COLLEGE

THE ELEVENTH SESSION OPENS SEPT. 6th.

200 State Students Pay No Tuition. Necessary Expenses for 10 Months, \$132.

Apply to your County Superintendent of Schools, or address

T. N. CONRAD, President,
BLACKSBURG, VA.

Sept 1—2t

FOR SALE 469 ACRES OF LAND!

In ALLEGHANY COUNTY, Va.,

On Little Ogle's Creek, three miles from Calleghan's Station, on the Ches. & Ohio R. R.

There are two dwelling-houses on said land. Apple orchards of various kinds; about 1000 sugar trees; an abundance of fine wood thereon, and about 50 acres of under cultivation, adapted to corn, wheat, oats, and grass. Also thought to be fine for the cultivation of grasses. Seventy one acres are of the richest unimproved mountain land.

Persons wishing to see said land for the purpose of buying, will please call on Mr. J. F. RICHARDSON, at CALLEGHAN'S.

AUGUST 14, 1882.

P. A. JOHNSON,
Alleghany Co., Va.

INCORPORATED 1832.

VIRGINIA FIRE & MARINE INSURANCE COMPANY

RICHMOND, VIRGINIA.

Half a Century in Active and Successful Operation.

ASSETS, - - \$557,000.00.

Has paid hundreds of thousands for losses in this State, and over three millions altogether. All kinds of Farm Property taken at lowest current rates. *Insures against Fire and Lightning.* Agencies throughout the South and West. HOME OFFICE: Richmond, Va.

WM. H. McCARTHY, Sec'y.
feb 1—1y

W. L. COWARDIN, Pres.

AGENTS WANTED



NEW WHITE GRAPE DUCHESS!

Also PRENTISS, POKKLINGTON, LADY WASHINGTON, LADY VERGENNES, JEFFERSON, BRIGHTON, MOORE'S EARLY, DELAWARE, WORDEN, etc. CUTHBERT, GREGG, OHIO, TAYLOR, Wachuset's Thornless, SNYDER, Sharpless, BIDWELL, etc.; Kieffer's Hybrid and other Pear Trees; CHERRY; PLUM; PEACH; CHAMPION QUINCE; Lee's Profitic Black, and other CURRANTS, GOOSEBERRIES, and a general assortment of Fruit and Ornamental Trees, Shrubs, Climbing Vines, ROSES, Seeds, Bulbs, etc., at low rates. Descriptive Catalogue and Price-List free. Address H. S. ANDERSON, Successor to FARLEY & ANDERSON, Cayuga Lake Nurseries, Union Springs, N. Y.

jan 1—12t

The **GRAPES** Prentiss,

Extra quality. Warranted true. Cheap by mail. Low rates to dealers. Illustrated Catalogue free. T.S. HUBBARD, Fredonia, N.Y.

sep—9t

UNIVERSITY of VIRGINIA

The Session begins on the FIRST OF OCTOBER, and continues until the Thursday before the fourth day of July ensuing.

The Institution is organized in separate Schools on the Eclectic System, embracing FULL COURSES OF INSTRUCTION IN LITERATURE AND SCIENCE, and in the PROFESSIONS OF LAW, MEDICINE,

ENGINEERING AND AGRICULTURE.

THE EXPENSES of the student (except such as enter the practical laboratories), exclusive of the cost of text books, clothing and pocket money, are from \$356 to \$391, according to Schools selected; or, for those who economize by messing, these expenses are from \$266 to \$300. No charge for tuition candidates for the ministry unable to meet the expense.

Apply for Catalogues to F. W. PAGE, Secretary, P. O. University of Virginia, Albemarle county, Va. JAMES F. HARRISON, M. D., Chairman of the Faculty.

apl 15-1y



PREMIUM CHESTER WHITE, BERKSHIRE & POLAND-CHINA PIGS

And FINE SETTER DOGS

Bred and For Sale by

ALEXANDER PEOPLES,

West Chester, Chester Co., Pa.

Send stamp for circular and price-list.
jan 1-1y

HEALTH IS WEALTH.

DR. E. C. WEST'S NERVE AND BRAIN TREATMENT; a specific for Hysteria, Dizziness, Convulsions, Nervous Headache, Mental Depression, Loss of Memory, Spermatorrhœa, Impotency, Involuntary Emissions, Premature Old Age, caused by over-exertion, self abuse or over indulgence, which leads to misery, decay and death. One box will cure recent cases. Each box contains one month's treatment. One dollar a box, or six boxes for five dollars; sent by mail, prepaid on receipt of price. We guarantee six boxes to cure any case. With each order received by us for six boxes, accompanied with five dollars, we will send purchaser our written guarantee to return the money if the treatment does not effect a cure. Guarantees issued by BODEKER BROS., Druggists, 1414 Main street, Richmond, Va., Wholesale and Retail Agents. Orders by mail will receive prompt attention.

jan 1-1y

LANDRETHS' PEDIGREE SEEDS

ESTABLISHED NINETY-EIGHT YEARS

SEEDS | For the MERCHANT on our New Plan | SEEDS
SEEDS | For the MARKET GARDENER | SEEDS
SEEDS | For the PRIVATE FAMILY | SEEDS
SEEDS | Crown by ourselves on our own Farms | SEEDS

Handsome Illustrated Catalogue and Rural Register FREE TO ALL.

MERCHANTS, SEND US YOUR BUSINESS CARDS FOR TRADE LIST.

DAVID LANDRETH & SONS, SEED GROWERS, PHILADELPHIA

my 15-1y

An Unadulterated Natural Deposit.



RICH IN PHOSPHATES AND ALKALINE SALTS AND A PERFECT SUBSTITUTE FOR BONE.

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 very successfully, and we offer it 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.* A liberal application of the Orchilla (say from 400 to 500 lbs. to the acre) will not only produce a good crop of corn, but will leave the land in excellent condition for the wheat crop, which may be very safely sown on the same land after the corn is gathered *without any additional application of any kind of manure;* and where it is desired to follow the wheat with grass, the effect of the former application of Orchilla will be seen in the production of from three to four crops of good grass. Thus its effect does not by any means cease with the crop on which it is first used, but is of positive and lasting benefit to the soil.

WOOLDRIDGE, TRAVERS & CO., Importers,

No. 64 Buchanan's Wharf (Foot of Frederick St.), Baltimore, Md.

Send for Circular and see what farmers say.

jy 1-2t



SAUL'S NURSERIES,



WASHINGTON, D. C.

The undersigned offers a fine stock of the following, at Low Rates: *NEW PEARS, NEW PEACHES, NEW CHERRIES, NEW GRAPES, NEW STRAWBERRIES, &c.*

FRUIT TREES OF ALL KINDS—

An extensive stock, viz :

PLUMS, CHERRIES, APRICOTS, APPLES, SUITABLE TO THE SOUTH, &c.

GRAPEVINES, STRAWBERRIES, RASPBERRIES, &c.

New sorts **EVERGREENS, NEW ORNAMENTAL TREES, NEW SHRUBS, &c.**

SMALL SIZES, suitable for *Nurserymen*, as well as large stock in great variety.

DUTCH BULBS.

Large importations direct from the leading growers in Holland. First quality Bulbs—**HYACINTHS, LILIES, TULIPS, &c.** New and rare **GREENHOUSE PLANTS: WINTER BLOOMING PLANTS.**

ORCHIDS—East Indian, Mexican, &c.

NEW ROSES—Bennett's, Hybrid Teas, Queen of Bedders, New French and English Roses, &c.

Everything at **LOW RATES.** CATALOGUES mailed to applicants.

sept—2t

JOHN SAUL, Washington, D. C.

Feed Your Lands and They Will Feed You.

FERTILIZER FOR THE WHEAT CROP!

Farmers in the Wheat Country will be able to procure this season, as usual, their supply of the **OLD STANDARD**

“Anchor



Brand”

PATENTED

FERTILIZER FOR THE WHEAT CROP!

Reliable Agents attend to its sale at all points of any importance in the Wheat-Growing Region; and receiving it in quantity, will furnish it at bottom figures.

This article, in the thousands of tons that have been used of it during the past sixteen years, has demonstrated its reliability *in the field* against all comers.

For further particulars, address

SOUTHERN FERTILIZING COMPANY,

RICHMOND, VA.

Sept—3m

WILLIAM L. BRADBURY

NASON, ORANGE COUNTY, VA.,

IMPORTER, BREEDER, AND SALES AGENT,

—OFFERS FOR SALE—

Shorthorns, Jerseys

DEVONS

COTSWOLD SHEEP,

FROM THE CHOICEST HERDS AND FLOCKS IN VA.

He would call **SPECIAL ATTENTION** to a very superior lot of—

YEARLING COTSWOLD BUCKS that sheared an average of fifteen pounds last spring. Also, **BUCK LAMBS, EWES, and EWE LAMBS.**

MERINO EWES for Sale Low. They are a **SPLENDID LOT OF YOUNG SHEEP.** Can supply both **Thoroughbreds and Grades.**

STOCK SHEEP. delivered in Car load Lots at any Railroad Station in Virginia.

JERSEY-RED PIGS.

THOROUGHbred POULTRY,

HOUDANS, LIGHT BRAHMAS, SILVER SEABRIGHT BANTAMS.

GENUINE WINTER OATS FOR SEED.

(SEND FOR SPECIAL OAT CIRCULAR.)

ILLUSTRATED CATALOGUE AND PRICE-LIST—FREE.

Address **WM. L BRADBURY,**

Sept—1y

Nason, Orange County, Va.

NORFOLK & WESTERN RAILROAD.

Time Table in effect Aug. 27, 1882.

WASHINGTON TIME.	WESTWARD DAILY.	
	No. 1.	No. 3.
Leave Norfolk	12.25 p. m.	.....
" Suffolk	1 13 "	.....
Arrive Petersburg	3 35 "	.....
Leave Petersburg	3 50 "	.....
" Burkeville	6.11 "	.....
" Farmville	6.56 "	.....
Arrive Lynchburg	9.00 "	.....
Leave Lynchburg	9.30 "	2.40 p. m.
" Liberty	10.38 "	3.32 "
" Roanoke	12.15 a. m.	4.39 "
" Christiansburg	1.32 "	6.00 "
" Wytheville	3.22 "	8.06 "
" Marion	4.26 "	9.08 "
" Abingdon	5.33 "	10.14 "
Arrive Bristol	6.00 "	10.45 "

CONNECTIONS.

At PETERSBURG, with R. & P. R. R. for Richmond and Springs on C. & O. Ky., Fredericksburg, Washington, Baltimore and the North and East. Through Pullman Car from Petersburg to New York. Solid trains Petersburg to Washington.

At BURKEVILLE, with R. & D. R. R. for South. At LYNCHBURG, with Va. Mid. R. R. to and from the South and North, and with Richmond & Alleghany R. R. for Buchanan, Clifton Forge and C. & O. Ky. points.

At BRISTOL, with East Tenn., Va. & Ga. R. R. for Knoxville, Dalton, Chattanooga and all points south, West and southwest.

WASHINGTON TIME.	EASTWARD DAILY.	
	No. 2.	No. 4.
Leave Bristol	11.35 p. m.	5.00 a. m.
" Abingdon	12.07 a. m.	5.29 "
" Marion	1.13 "	6.31 "
" Wytheville	2.17 "	7.31 "
" Christiansburg	4.08 "	9.28 "
" Roanoke	5.35 "	10.45 "
" Liberty	6.55 "	12 15 p. m.
Arrive Lynchburg	8.00 "	1.15 "
Leave Lynchburg	8.20 "	.....
" Farmville	10.14 "	.....
" Burkeville	11.00 "	.....
Arrive Petersburg	12.55 p. m.	.....
Leave Petersburg	1.05 "	.....
" Suffolk	3.28 "	.....
Arrive Norfolk	4.15 "	.....

CONNECTIONS.

At LYNCHBURG, with Va. Mid. R. R. for Danville and North Carolina points, and for Washington and Eastern cities.

At BURKEVILLE, with R. & D. R. R. for Richmond.

Through car from Lynchburg to Richmond.

At PETERSBURG, with P. R. R. for Weldon, Raleigh, Goldsboro, Wilmington and the Southeast.

At NORFOLK, with Bay Line Steamers daily, except Sunday, for Baltimore—thence rail to Philadelphia and New York; with Old Dominion Steamers on Mondays, Wednesdays and Saturdays for New York, and on Tuesdays and Fridays with M. & M. T. Co. for Boston and Providence.

First and second class tickets as low as the lowest—150 lbs. of baggage checked free to each whole ticket, and 75 lbs. to each half ticket. 1,500 mile tickets, \$37.50; 1,000 mile tickets, \$30.00.

For further information as to tickets, rates, baggage checks, &c., call on or address the Gen'l Freight and Passenger Agent, Lynchburg, Va.

HENRY FINK, V. P. and General Manager.
 CHAS. P. HATCH, Gen'l Ft. and Pass. Agt.
 W. A. CARPENTER, Ass't G. F. and Pass. Ag't.
 Lynchburg, Va.

Beckwith's Anti-Dyspeptic Pills.

These Pills, once compounded by a physician of extensive and long practice and of high reputation, are recommended by gentlemen of the highest standing both in and out of the medical profession. They are used by the most cultivated people in our country. They contain no mercury, and profess to do no more than one medicine ought to accomplish. They have stood the test of more than sixty years, and have lost no reputation.

Beckwith's pills will PREVENT AND CURE DYSPEPSIA. They are an unrivaled DINNER PILL, mild aperient, and admirably adapted as a FAMILY MEDICINE. Prepared solely by E. R. BECKWITH, Petersburg, Va., from the original receipt of his grandfather, Dr. John Beckwith, and sold by druggists generally.

For sale in Richmond by

POLK MILLER & CO.

feb 1—1y

PAYNE'S AUTOMATIC FARM ENGINES



Established 1840.



Spark Arrester.

Reliable, durable and economical, will furnish a horse-power with one-third less fuel and water than any other engine built, not fitted with an automatic cut-off. Send for Illustrated Catalogue "D 10" for information and prices.

B. W. PAYNE & SONS,

Box 1377.

Corning, N. Y.

jan 1—1y

POMONA NURSERY.



Oriental & Hybrid Pears.

Manchester, Bidwell and Mt. Vernon Strawberries, Raspberries, Blackberries, Flowers and Fruit Trees. Catalogues free.

WM. PARRY, Parry P. O., N. J.

jan 1—1y

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

EAST TENN., VIRGINIA & GEORGIA RAILROAD.

GREAT SOUTHERN TRUNK LINE

Between all principal Southern cities. For freight and passengers. Shortest, most Direct and comfortable route to all Eastern and Virginia cities. Only direct route to the watering places and resorts of East Tennessee and Virginia. The Great Emigrant Route to Texas and the Northwest via its Memphis and Charleston Division, and to all points in Southern and Central Texas via Calera or Meridian and New Orleans.

THROUGH SLEEPING CARS between New Orleans and Lynchburg, Memphis and Lynchburg, connecting with Through Sleepers, Lynchburg to New York, Way Cross Line to Florida, via its Macon and Brunswick Division. Illustrated Pamphlet free on application.

For Rates or Information, address,
 Jas. R. Ogden, G. F. & P. A., Knoxville, Tenn
 Jos. Gothard, A. G. F. & P. A., " "
 T. S. Davant, " " " " Memphis
 Ray Knight, " " " " Selma, Ala.
 J. J. Griffin, " " " " Macon, Ga.
 M. M. Welch, Western Agent, Chattanooga
 H. W. Lowry, Ticket " Dalton, Ga.
 W. R. Kerr, Passenger " Knoxville, Tenn
 H. D. Boyd, Ticket " Chattanooga
 J. Bunting, Jr., " " Bristol, Tenn.

PENSIONS



are paid every Soldier disabled in the U. S. service by **Wound, Rupture, accidental injury or any Disease** however slight. Apply for your just dues. Widows, Mothers, Fathers, Children and Brothers and Sisters are paid Pensions. Under new laws **INCREASE** of Pensions are due thousands of Pensioners. Patents secured for inventors. **BOUNTIES** are due thousands of Soldiers and Heirs and do not know it. References furnished.

Address, (with stamp),—
BEAN, RARE & CO.
U. S. Claim Attorneys,

Lock-Box 233. WASHINGTON, D. C.
 my 1—6t



The richest, cream, BEER ever quaffed. Purifies the blood. CURES Dyspepsia, Liver and Kidney diseases. Sent by Mail on receipt of 25 cts. in postage stamps.

Address: **BEAN & RARE**, Wholesale Druggists,
 Nos. 47 & 49 N. 2d St., Philadelphia.

ap 15—1y

CANCER OFFICE, 202 West 4th St.

New book on treatment and cure of Cancer. Sent FREE to any address on receipt of stamp. Address, **Drs. GRATIGNY & NORRIS**, Box 598, Cincinnati, O.
 je 1—6m

GREENFIELD CUTLERY CO

Manufacturers of



Superior Solid Steel

Silver Plated Pie, Butter, Table, Dessert and Tea Knives, to Match.

ALFORD, WARD & DAVENPORT
 85 CHAMBERS ST., NEW YORK.

In order to introduce our goods to the people, will send by mail, prepaid,

1 Pie Knife,	\$2.00	6 Table Knives,	\$3.
1 Butter "	50	6 Dessert "	3.
6 Tea Knives,	3.00	or any portion pro ra	

mch 1—1y

UNEQUALLED THE BEST QUALITY STERLING



Beech-Loading

SINGLE SHOT GUN

SIDE SNAP ACTION, PISTOL GRIP STOCK. CHOICE BORED. EITHER BRASS OR PAPER CARTRIDGES CAN BE USED IN IT. BORE, 10, 12, 14 AND 16. Nickel Mountings. PRICE, \$16. AUXILIARY RIFLE BARREL CAN BE USED IN THIS GUN, THUS MAKING VIRTUALLY TWO GUNS—A BREECH LOADING SINGLE GUN AND RIFLE.

ALFORD, WARD, DAVENPORT & CO
 85 CHAMBERS STREET, NEW YORK.

feb 1—1y

SMITH, MYERS & SCHNIER,

Manufacturers of

ALL SIZES OF

Circular Saw Mills

Steam Engines and Boilers

Shafting, Pulleys, Hangers, Couplings, Gearing and General Machinery.

OUR

No. 1 Plantation Saw Mill,

\$200

(SEND FOR DESCRIPTIVE CIRCULARS.)

SMITH, MYERS & SCHNIER,

323, 325, 327 & 329 W. Front St.,
CINCINNATI, OHIO.

je 1—6t

FOR FALL PLANTING.

Fruit and Ornamental TREES, SHRUBS, ROSES, &c.

The largest and most complete general stock in the U. S., including many *Choice Novelties*. Abridged Catalogue mailed *Free* to all applicants. Address
ELLWANGER & BARRY, Mt. Hope Nurseries, Rochester, N. Y.

Sept—21

CHESAPEAKE AND OHIO RAILWAY

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 full information, call on the nearest Chesapeake and Ohio agent, or address

C. W. SMITH, H. W. FULLER,
 Gen'l Manager. Gen'l Pass'r Agent.

For the North and West.

Do not fail to see that your Ticket reads by the
 NASHVILLE, CHATTANOOGA and ST. LOUIS RAILWAY.

For speed, safety and comfort you will find this line to be unrivaled.

Emigrants wishing to go West either to locate or as prospectors, will find it to their advantage to go by this route. Round trip emigrant tickets on sale to Texas points. By this line you have no tiresome delays. Through coaches are run from Chattanooga to Columbus without change. Sleeping coaches on all night trains. Good Coaches, Good Road and quick time.

For Maps, Time Tables and all information in regard to this route, call on or address

A. B. WRENN, Wm. T. ROGERS,
 Traveling Agent, Passenger Agent
 Atlanta, Ga. Chattanooga, Tenn.
 Or W. L. DANLEY, General Passenger and Ticket Agent, Nashville, Tenn.

JERSEY RED PIGS

From largest herd South, which took Five Premiums and special mention at Virginia State Fair 1881. This hog is free from disease, a natural grazer, prolific and early to mature. Catalogue free.

T. LOVELOCK, Gordonsville, Va.
 Also, Collie Pups in April from imported strains. jan 1—1y



DERICK'S HAY 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 show up any other Press, as Dederick's Press is known to be beyond competition, and will bale with twice the rapidity of any other. The only way inferior machines can be sold is to deceive the inexperienced by ridiculously false statements, and thus sell without sight or seeing, and swindle the purchaser. Working any other Press alongside of Dederick's always sells the purchaser a Dederick Press, and all know it too well to show up. Address for circular and location of Western and Southern storehouses and Agents.

P. K. DERICK & Co.,
 Albany, N. Y.
 fe 15—1y

WANTED 50,000 FARMERS

To send for Illustrated Circulars of our
 Adjustable and Folding

IRON HARROW.

Cuts Six, Seven, Eight, Nine, Ten and Twelve Feet Wide at Pleasure.

ALL IRON.

Does fine or coarse work, adapting it to different seeds and soil. Best Harrow for cultivating corn, potatoes, cane, cotton, tobacco, &c., as each section goes between the rows. The only Harrow adapted to small farms, large farms, nurserymen and gardeners. The frame can be spread to a distance of eighteen feet and narrowed to fourteen inches.

Low freight and low prices.
 Address

ROMKEY BROTHERS,
 Burlington, Iowa.

(Established 1866.)

FAY'S BUILDING MATERIAL
 For Roofs, Walls and Ceilings in place of plaster. Samples and catalogue mailed free. W. H. FAY, Camden, N. J.

Received Medal
AND
HIGHEST AWARD



OF MERIT
AT
CENTENNIAL

Send for Catalogue:
SAWMILLS

STEAM ENGINES,

A. B. FARQUHAR, York, Pa.

Cheapest and best for all purposes—simple, strong, and durable. Also Horse Power and Gln Gear.

SAW, GRIST AND COB
MILLS, GINS, PRESSES
AND MACHINERY generally. Inquiries promptly answered.



Vertical Engines, with or without wheels, very convenient, economical and complete in every detail, best and cheapest Vertical in the world. Fig. 1 is engine in use. Fig. 2 ready for road.

The Farquhar Separator

(Warranted)
Penn. Agricultural Works,
York, Pa.
Lightest draft, most durable, simplest, most economical and perfect in use. Vastly superior to any other ready for market.



Send for Catalogue.
Steam Engines, Horse Power and Thrashers of all kinds. Also, ploughs, cultivators, &c., &c.

AND
HIGHEST PRIZE
AWARDED
SEPARATORS.



THE
SILVER MEDAL,
AT
Paris Exposition.

Address A. B. Farquhar, York, Pa.

sep 1—eot

LANE & BODLEY CO.

AWARDED

GOLD MEDAL

BY THE
ATLANTA COTTON EXPOSITION,
ON THEIR

Steam Engine and Saw Mill

Exhibited at Atlanta in 1881.

Manufacturers of Steam Engines, Boilers, Saw Mills, Gang Edgers, Lath Machines, Hug and Spoke Machinery, Shafting, Hangers, Pulleys, Couplings, Gearing, Grist and Flour Mills. Send for Special Circular of our No. 1 Plantation Saw Mill, which we sell for

\$200.

Special attention given to Plantation Machinery. Illustrated Circulars Free.

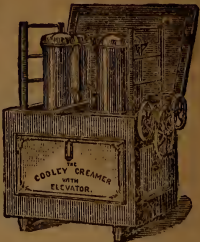
LANE & BODLEY CO.,
John & Water Sts., Cincinnati, O.

my 1—8t

COOLEY CREAMERS

Greatly Improved

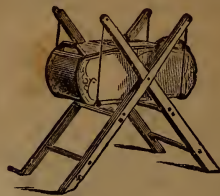
In daily use in over 15,000 factories and dairies. For securing cleanliness, purity and greatest possible amount of cream, have no equal.



Made in four styles, ten sizes each. Durable and ornamental. Skim automatically with or without lifting the cans. Most popular in the cream-gathering plan. Four gold medals and six silver medals for superiority.

Davis' Swing Churn

Best and Cheapest.

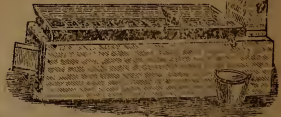


No inside fixtures—always right side up. No danger of cover falling out, letting all of the cream on to the floor. Nine sizes made. Three sizes Nesbitt Butter Printer. Four Sizes Eureka Butter Worker.

THE IMPROVED

EVAPORATORS

Make Better
SYRUP,
SUGAR,



and JELLY, with less fuel and labor than any other apparatus. Will condense Sorghum Juice faster than any evaporator in use. The best apparatus known for making jelly from sweet cider. Thousands in use. Send for descriptive circulars of Evaporators, Cane Mills, &c. Every implement warranted exactly as represented.

VT. FARM MACHINE CO.,

Bellows Falls, Vt.

ASHTON STARKE, Agent, Richmond, Va.

mch 1—12t



**Queen OF THE South
PORTABLE
FARM MILLS**

For Stock Feed or Meal for Family use.

10,000 IN USE.

Write for Pamphlet.

Simpson & Gault M'g Co.

Successors to STRAUB MILL CO.
CINCINNATI, O.

je 15—6t

Times Change and We Change With Them!!

LARGE REDUCTION in PRICES.

THE OLD and STANDARD BRANDS:

THE

ORIENT

Complete Manure,

(WITH POTASH.)

\$35 Cash at Factory.



**SUPERPHOSPHATE
—OF—
LIME.**

\$35 Cash at Factory.

OUR

ACID

PHOSPHATE

\$22 Cash at Factory.

With LIBERAL DISCOUNT for ONE or More CAR LOADS.

MANUFACTURED AND FOR SALE BY

ATLANTIC & VIRGINIA FERTILIZING COMPANY.

WM. G. CRENSHAW, President.

OFFICES:—6 and 7 Crenshaw's Warehouse, - RICHMOND, VA.

FACTORIES:— - - RICHMOND, Va., and ORIENT, L. I.

—ALSO ON HAND—

PURE SULPHATE OF AMMONIA,

of our own manufacture, and other high-grade Chemicals.

Send for Circulars and Testimonials.

SPECIAL ATTENTION!

— IS CALLED TO THE —

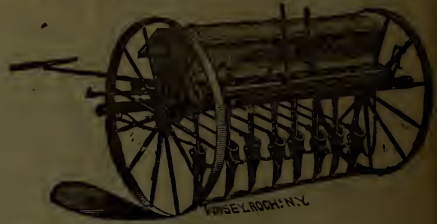
Randall Harrow.



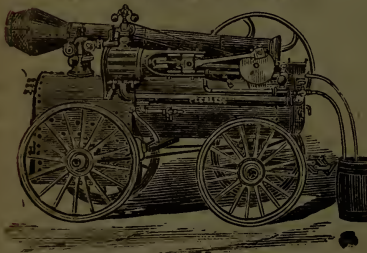
This is a **Steel-Disk pulverizing Harrow**. Is used after a fallow for cutting sod-land to pieces for deep harrowing, for **pulverizing** and bearing to pieces to a depth which **no other harrow** can reach; for getting in grain, &c. The driver, on his seat, can change the position of the disk at will, making it heavy draft, **cutting deep and pulverizing** thoroughly, or to a position which will simply cut the heavy sod to pieces in which position it is the **lightest draft harrow** made. This harrow is particularly recommended for **deep and heavy harrowing**.

We can fully recommend the **BICKFORD & HUFFMAN DRILL**. In offering it to our customers, we can guarantee satisfaction in every particular, for drilling Wheat, Oats, Corn and Peas with all kinds of Grass Seed and Fertilizers. It has a non-corrosive bottom. The quantity per acre of seed and fertilizer is accurately and easily regulated. One motion takes hoer up and throws every working part out of gear.

WHEAT DRILL.



PORTABLE ENGINE.



Our **SMALL PORTABLE ENGINES** are well adapted for cutting **Ensilage** and other feed, **shelling** corn, **driving** small grinding mills, **sawing** wood, &c. These Engines are particularly recommended for their **SIMPLICITY, DURABILITY, SAFENESS, PERFECTNESS** and the little skill required to manage them.

We also have **LARGE ENGINES**, Portable and stationary.

The **CYCLE** and the **BELLE CITY** are the most perfect. They **never clog or choke** and require very little power; they will cut up any kind of feed. We keep the **SINCLAIR** and many other good cutters. We call attention also to our **superior**

WHEAT DRILLS, SORGHUM MILLS,
Evaporators, Corn Shellers, &c.

SEND FOR CIRCULAR AND CATALOGUE.

Ensilage Cutters.



H. M. SMITH & CO., MANUFACTURERS & GEN'L AGTS.,
P. O. BOX 8, RICHMOND, VA.